

5. Peak-Average Ratio

5.1 Test Result

5.1.1 B4_1.4MHz

Band: 4 / Bandwidth: 1.4MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1710.7	6	0	5.06	<=13	Pass
	1732.5	6	0	4.98	<=13	Pass
	1754.3	6	0	4.92	<=13	Pass
16QAM	1710.7	6	0	5.90	<=13	Pass
	1732.5	6	0	5.81	<=13	Pass
	1754.3	6	0	5.79	<=13	Pass

5.1.2 B4_3MHz

Band: 4 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1711.5	15	0	5.12	<=13	Pass
	1732.5	15	0	6.05	<=13	Pass
	1753.5	15	0	5.09	<=13	Pass
16QAM	1711.5	15	0	5.92	<=13	Pass
	1732.5	15	0	5.90	<=13	Pass
	1753.5	15	0	5.87	<=13	Pass

5.1.3 B4_5MHz

Band: 4 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1712.5	25	0	5.15	<=13	Pass
	1732.5	25	0	5.17	<=13	Pass
	1752.5	25	0	5.14	<=13	Pass
16QAM	1712.5	25	0	5.92	<=13	Pass
	1732.5	25	0	5.92	<=13	Pass
	1752.5	25	0	5.90	<=13	Pass

5.1.4 B4_10MHz

Band: 4 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1715	50	0	5.05	<=13	Pass
	1732.5	50	0	5.10	<=13	Pass
	1750	50	0	8.35	<=13	Pass

5.1.5 B4_15MHz

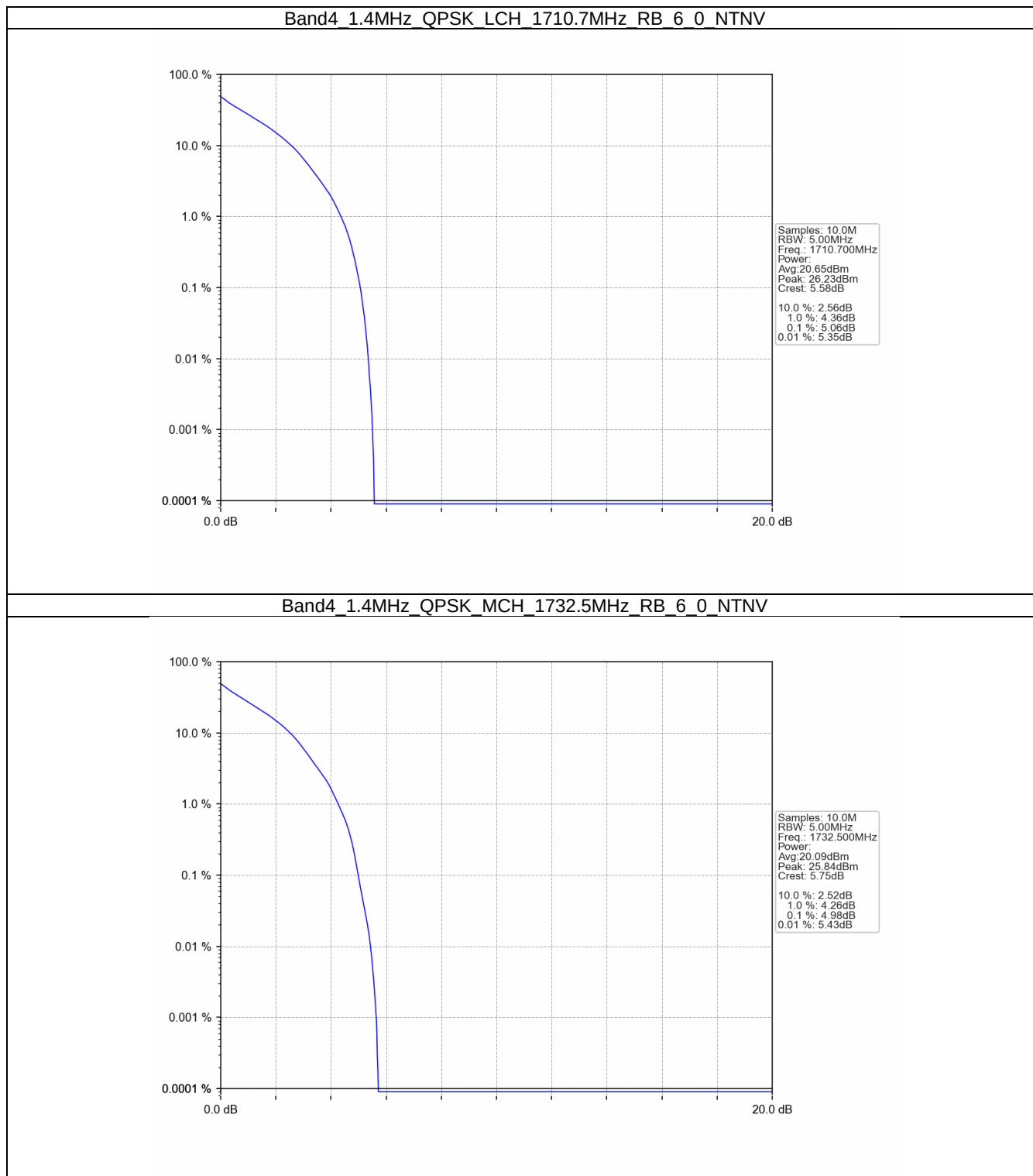
Band: 4 / Bandwidth: 15MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1717.5	75	0	5.19	<=13	Pass
	1732.5	75	0	5.27	<=13	Pass
	1747.5	75	0	5.25	<=13	Pass

5.1.6 B4_20MHz

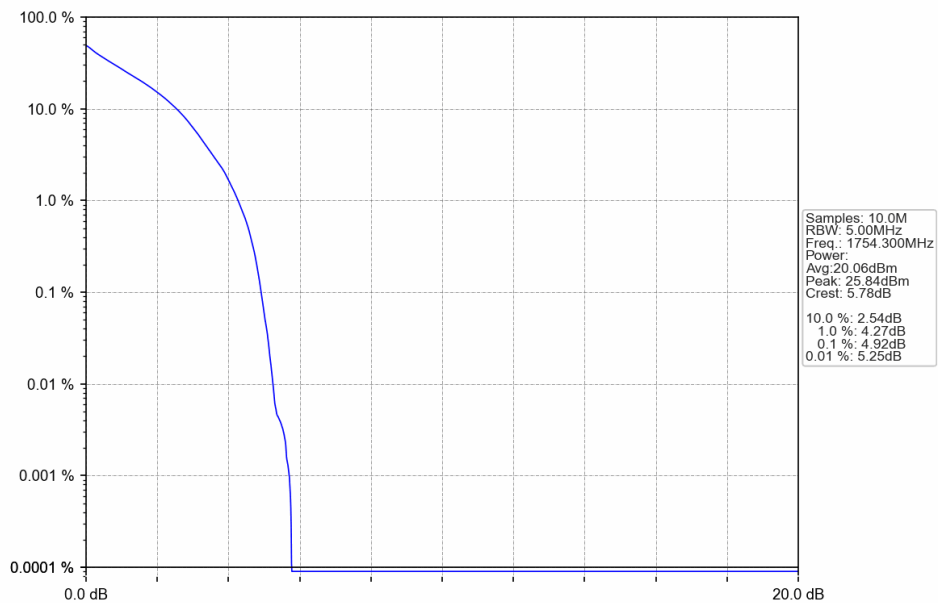
Band: 4 / Bandwidth: 20MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	100	0	5.01	<=13	Pass
	1732.5	100	0	5.13	<=13	Pass
	1745	100	0	5.09	<=13	Pass

5.2 Test Graph

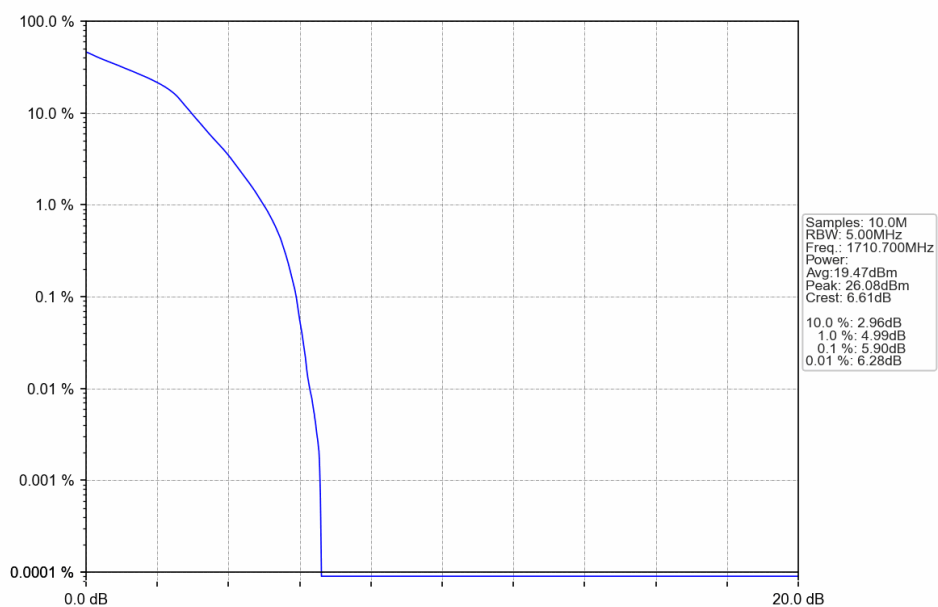
5.2.1 B4_1.4MHz



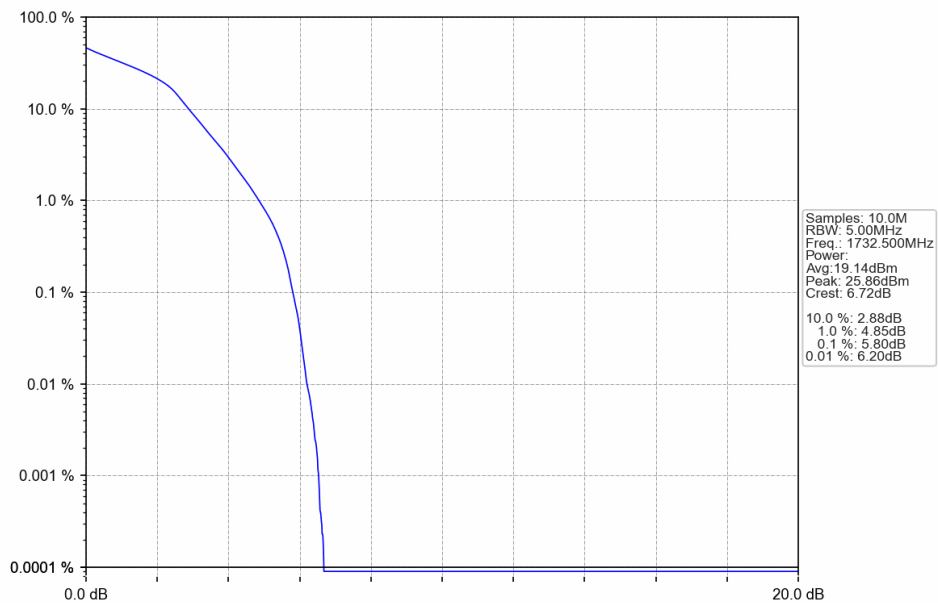
Band4 1.4MHz QPSK HCH 1754.3MHz RB 6 0 NTNV



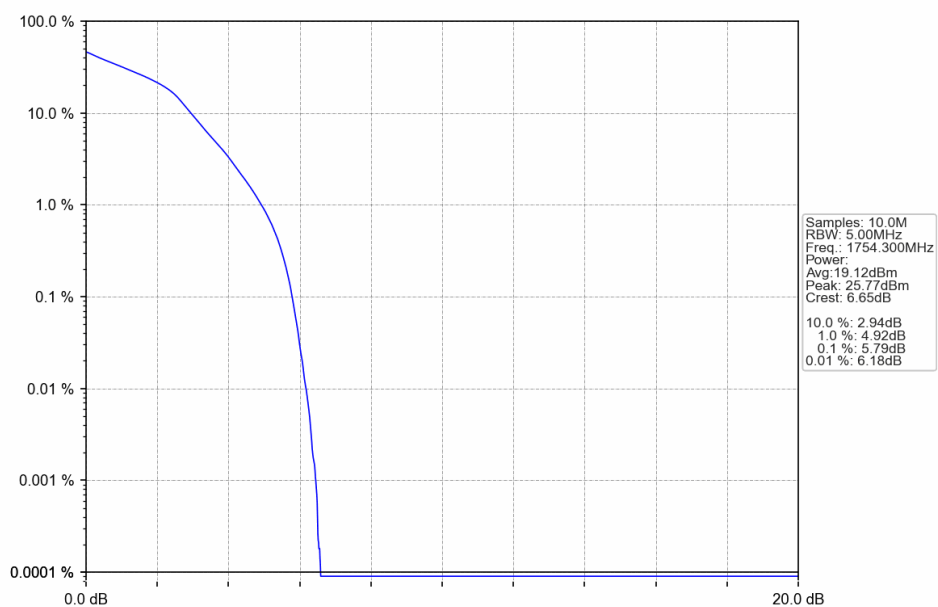
Band4 1.4MHz 16QAM LCH 1710.7MHz RB 6 0 NTNV



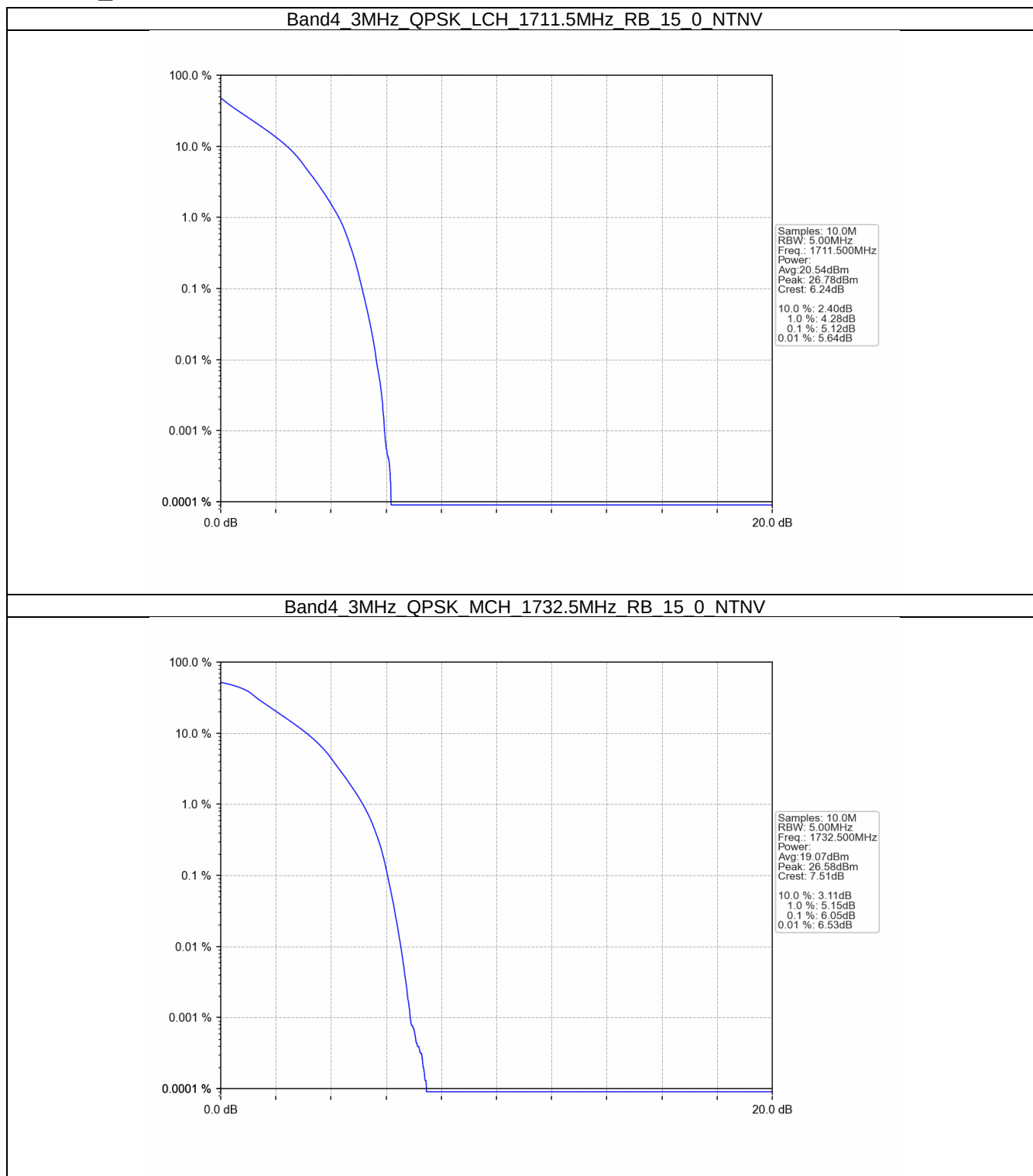
Band4 1.4MHz 16QAM MCH 1732.5MHz RB 6 0 NTNV



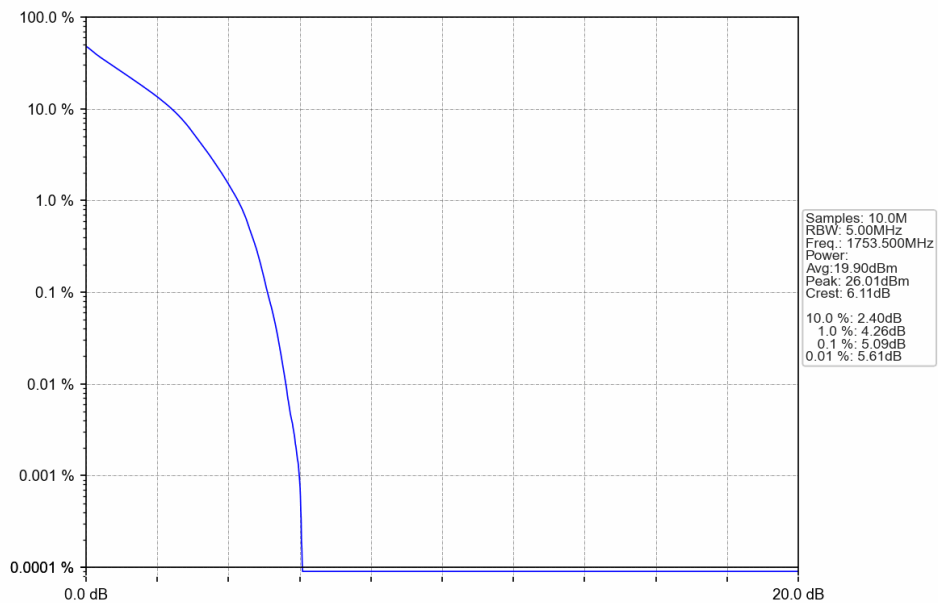
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTNV



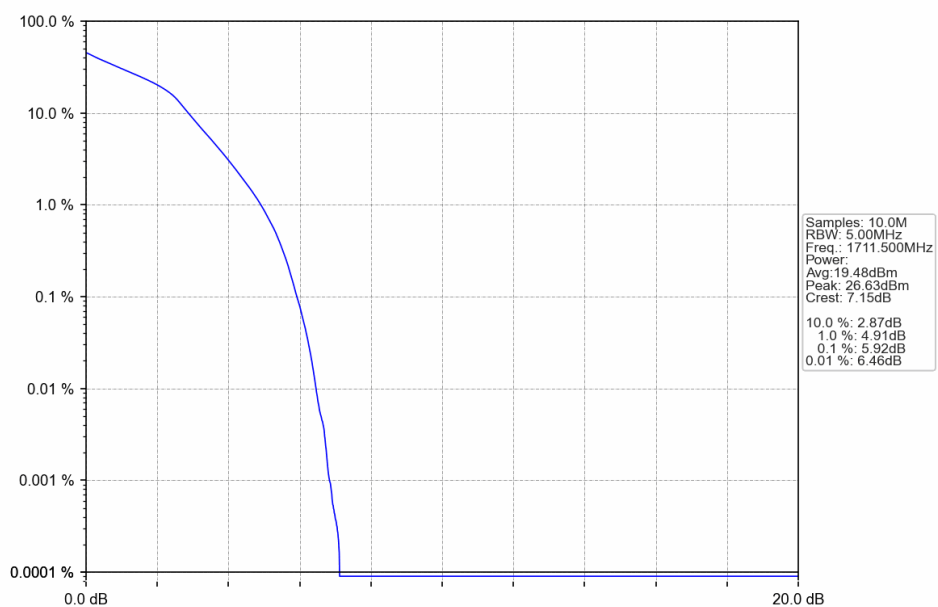
5.2.2 B4_3MHz



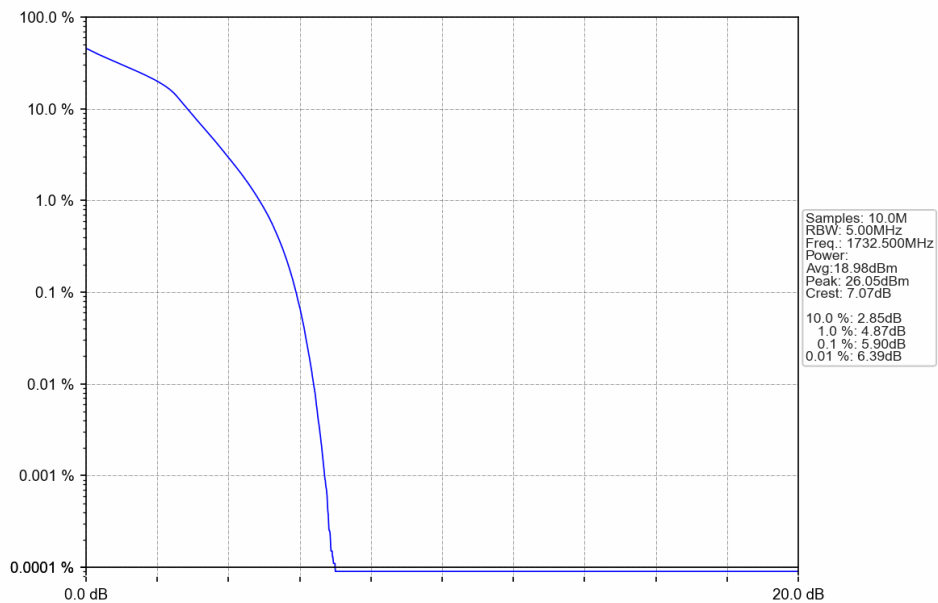
Band4 3MHz QPSK HCH 1753.5MHz RB 15 0 NTNV



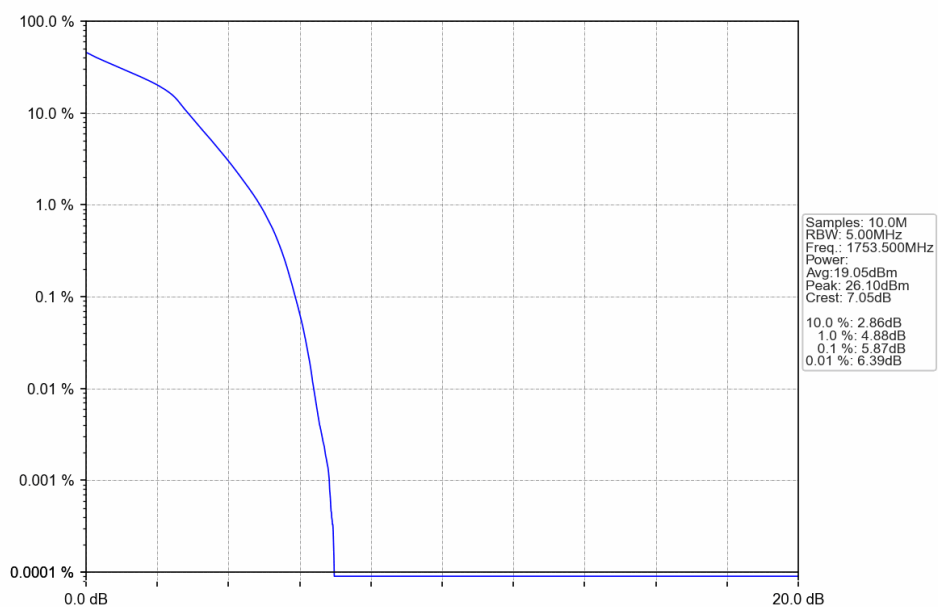
Band4 3MHz 16QAM LCH 1711.5MHz RB 15 0 NTNV



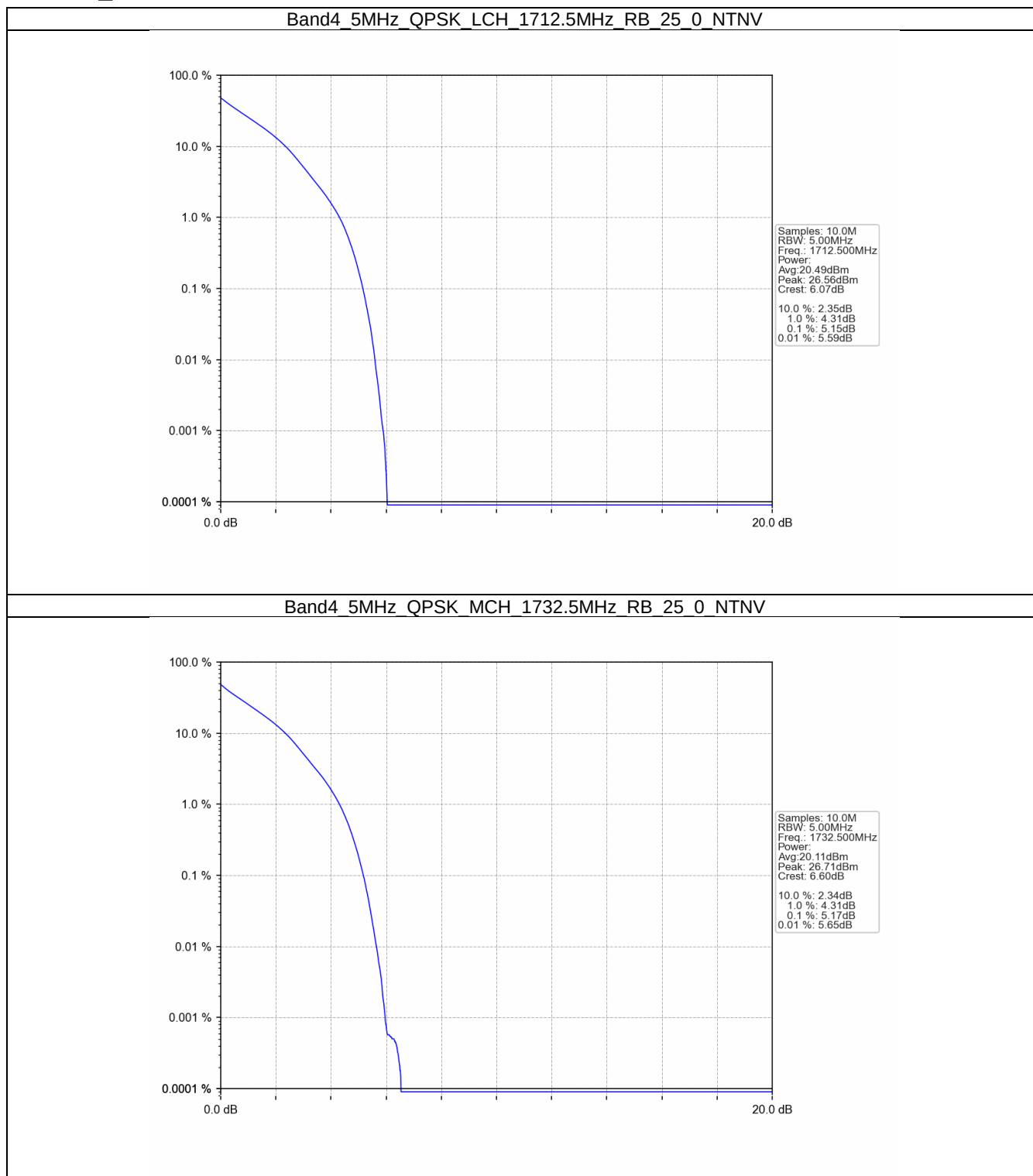
Band4 3MHz 16QAM MCH 1732.5MHz RB 15 0 NTNV



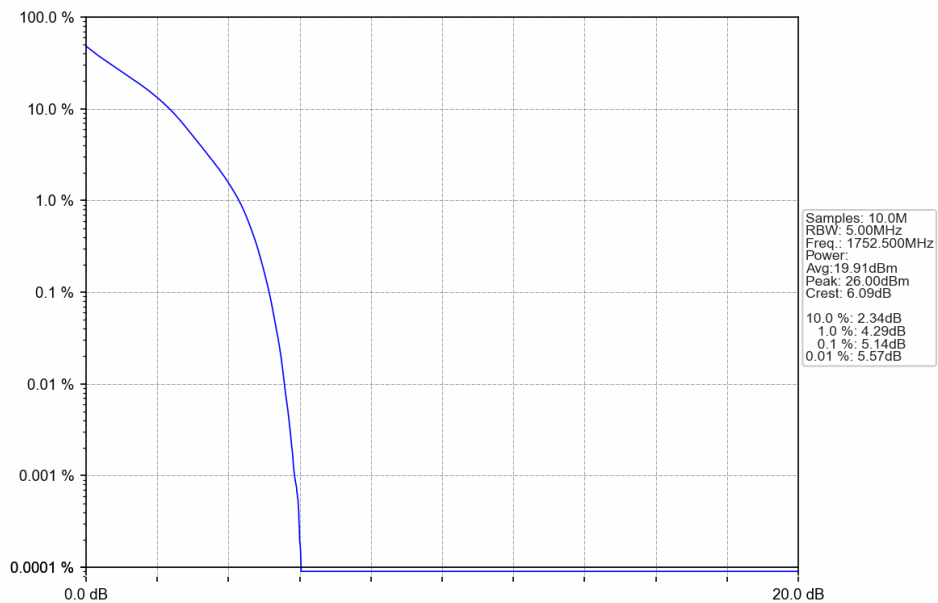
Band4 3MHz 16QAM HCH 1753.5MHz RB 15 0 NTNV



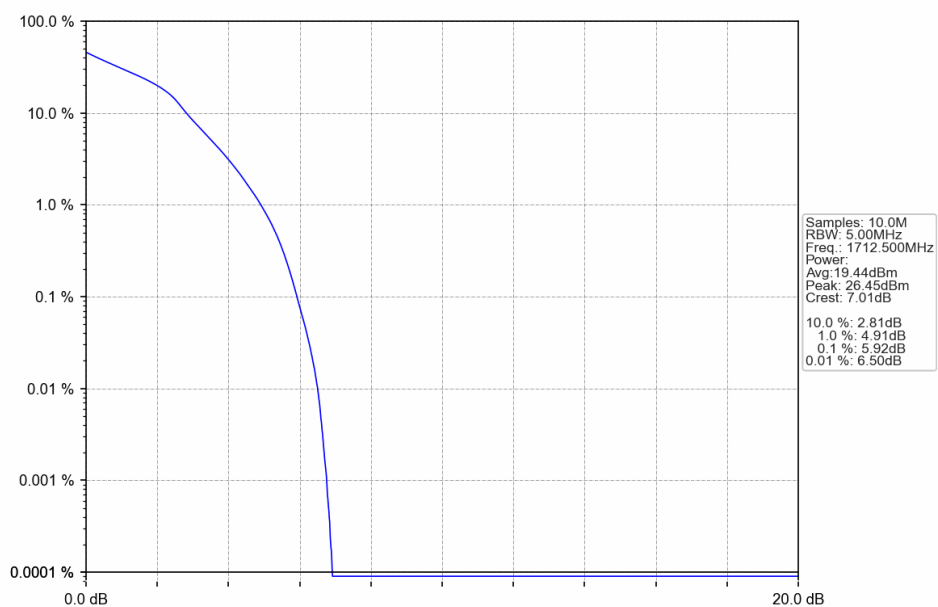
5.2.3 B4_5MHz



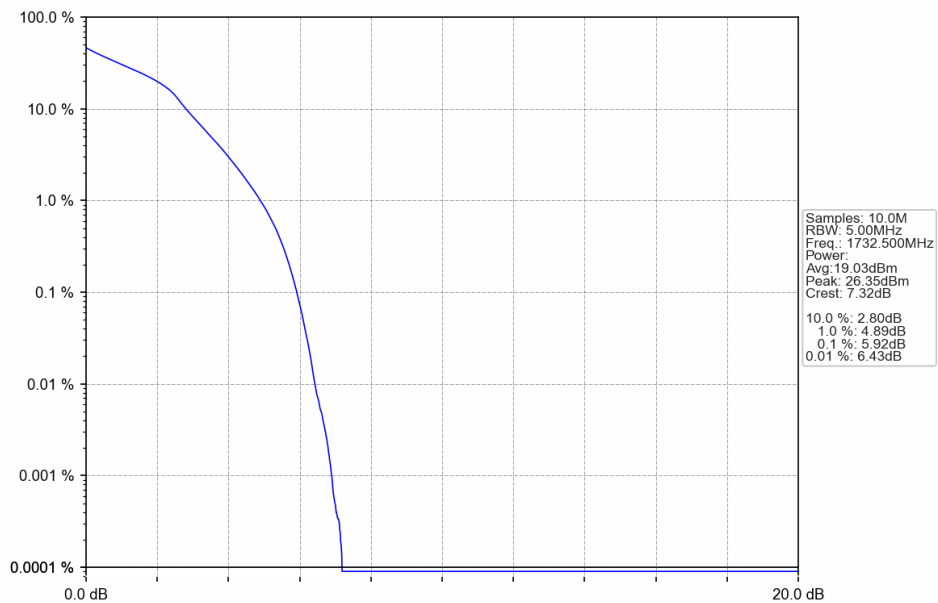
Band4 5MHz QPSK HCH 1752.5MHz RB 25 0 NTNV



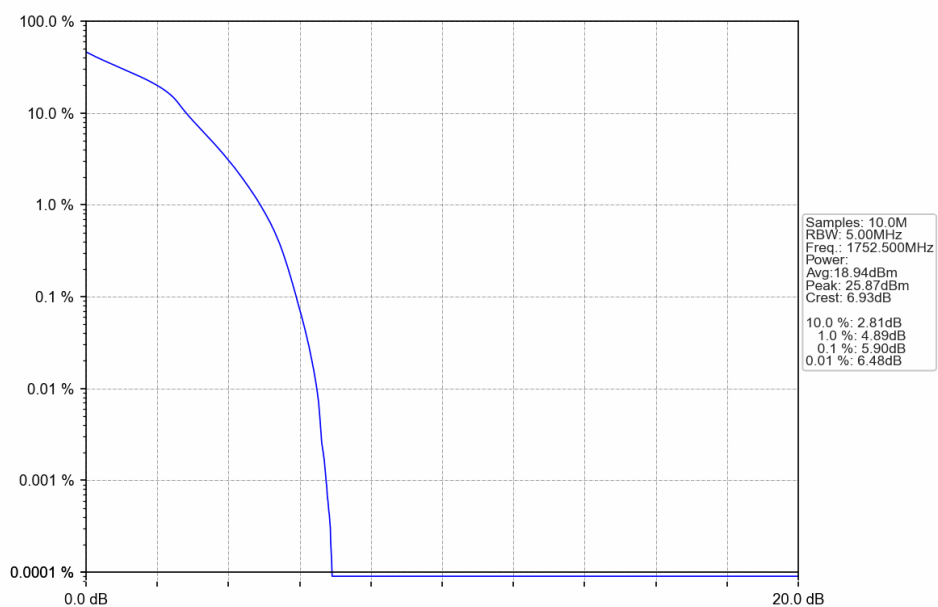
Band4 5MHz 16QAM LCH 1712.5MHz RB 25 0 NTNV



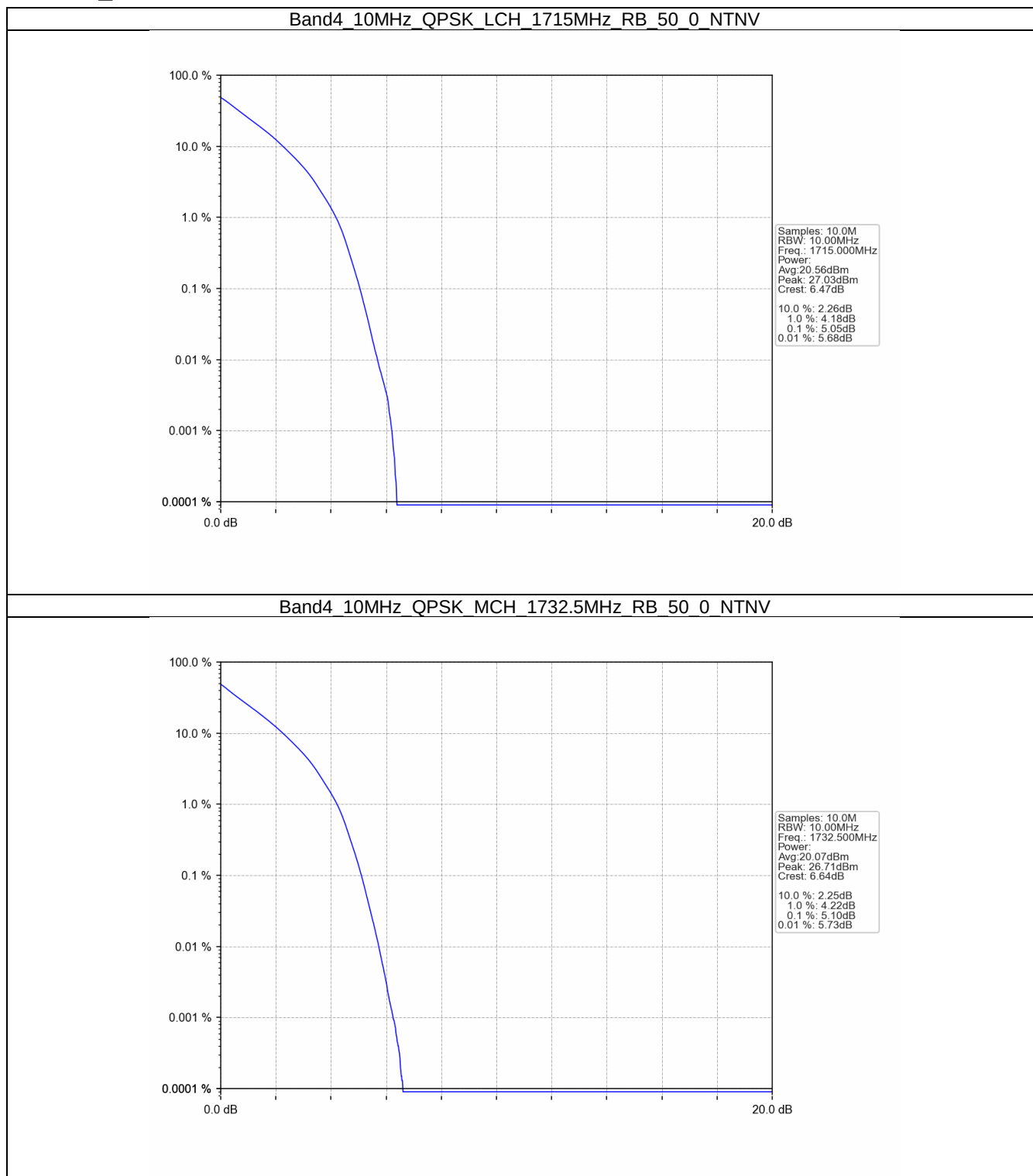
Band4 5MHz 16QAM MCH 1732.5MHz RB 25 0 NTNV

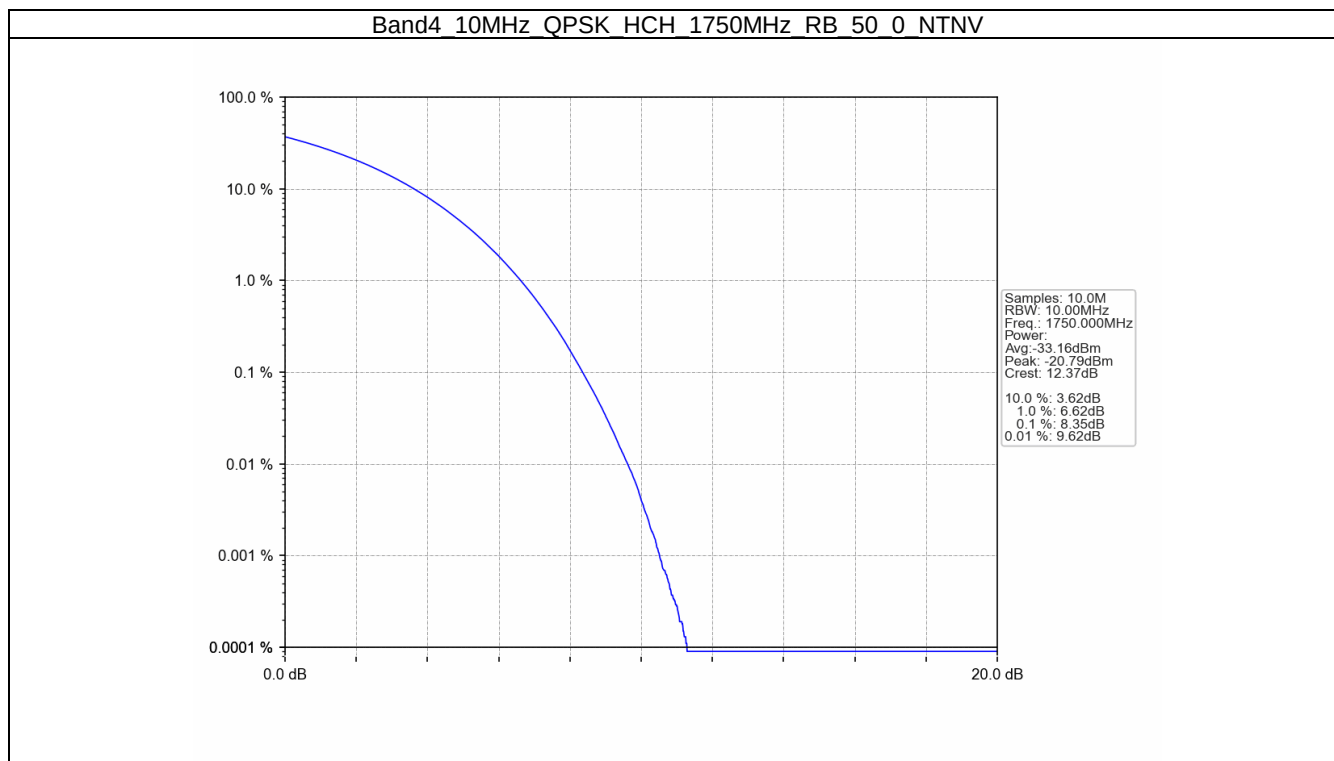


Band4 5MHz 16QAM HCH 1752.5MHz RB 25 0 NTNV

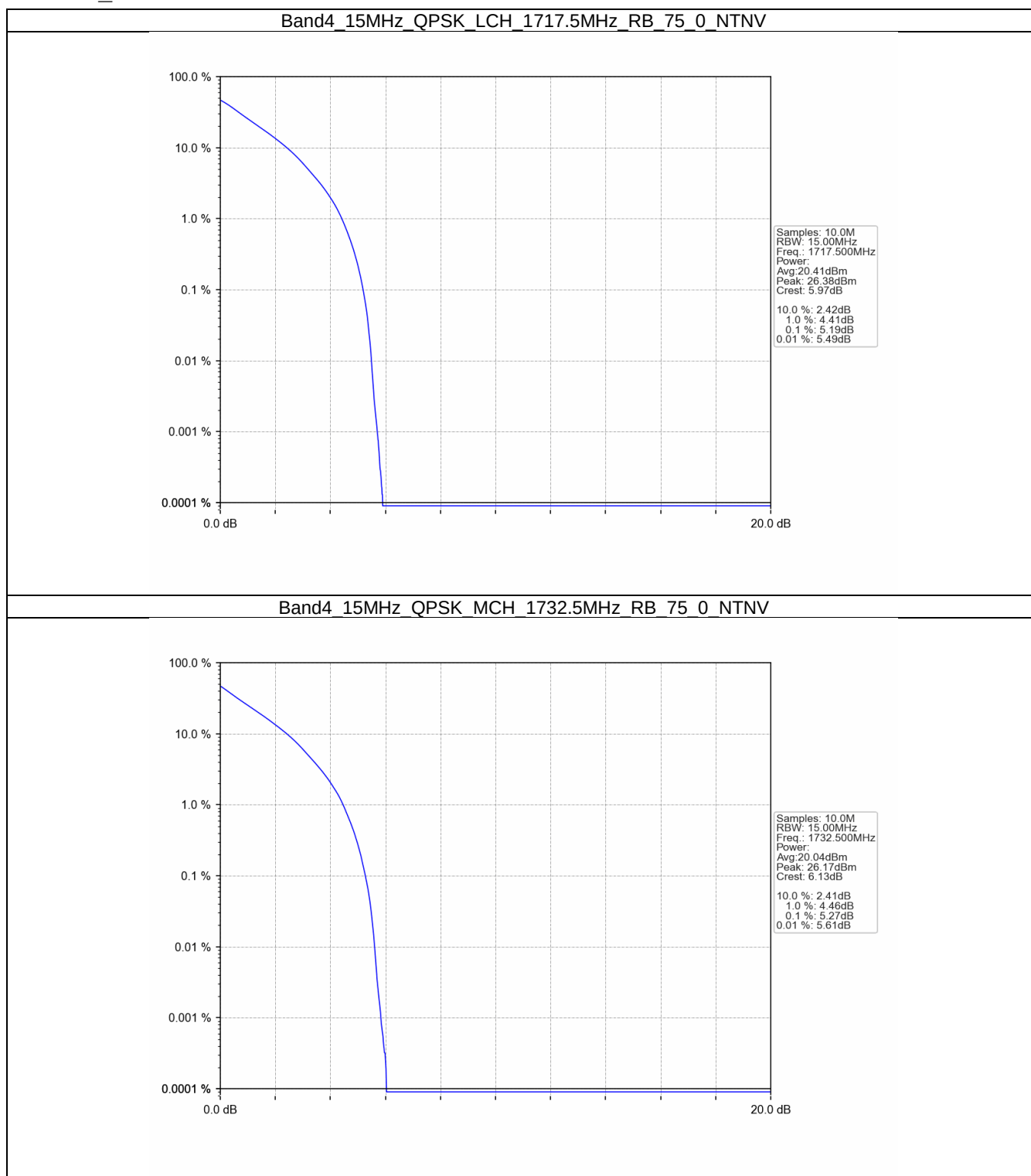


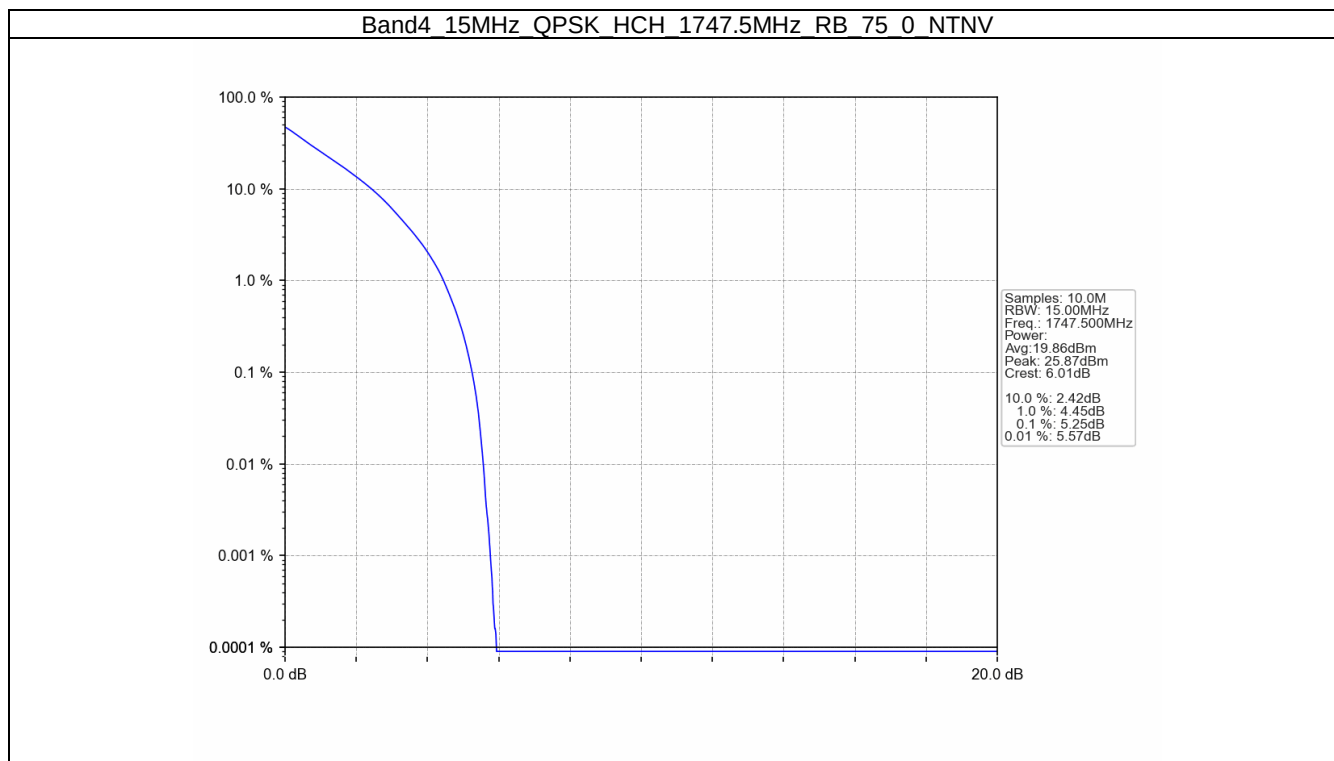
5.2.4 B4_10MHz



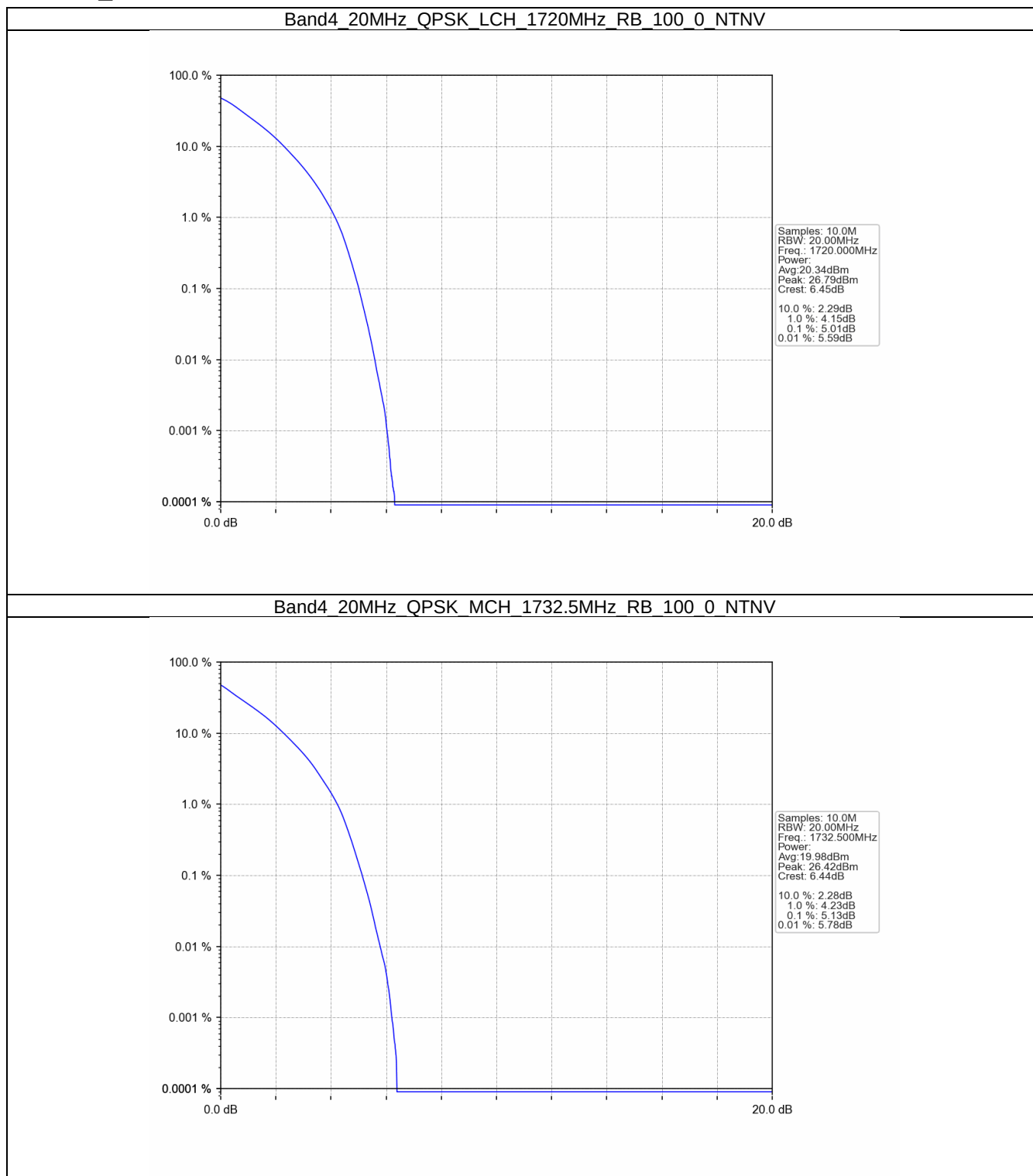


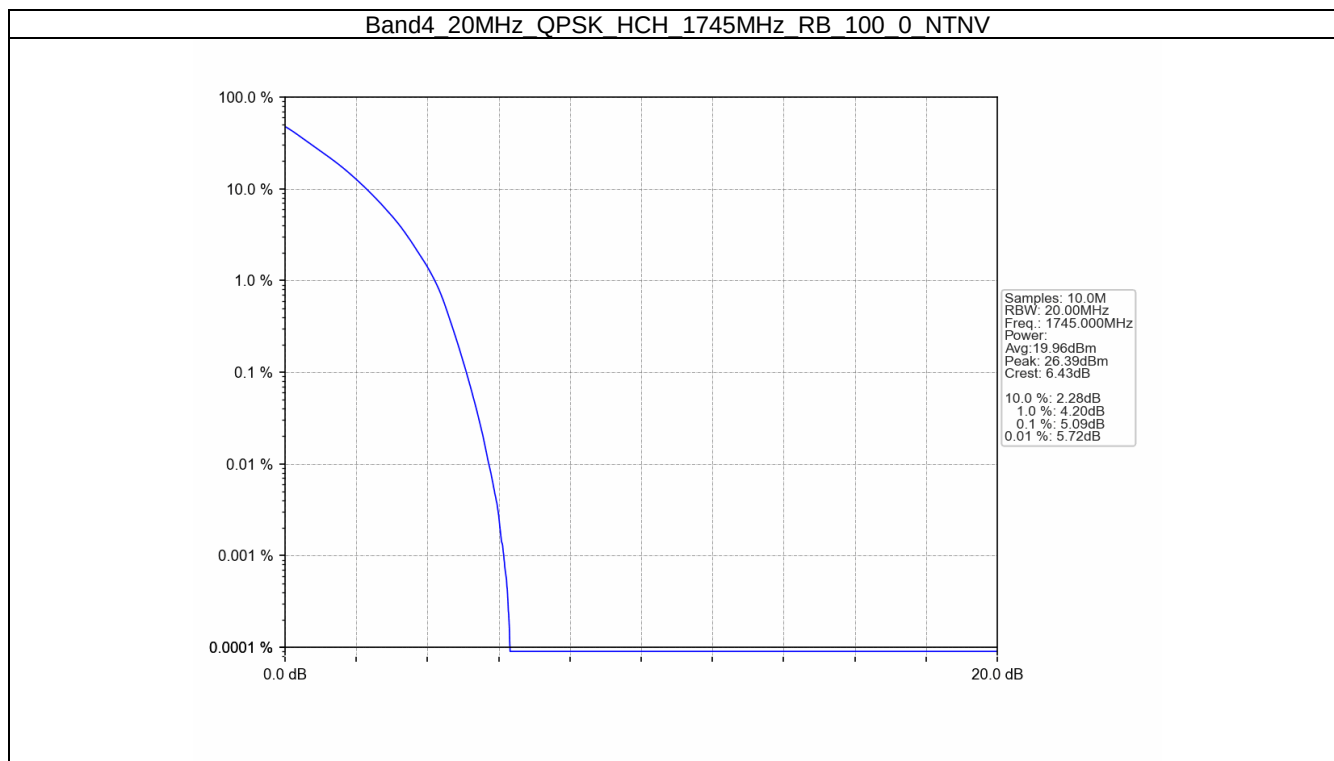
5.2.5 B4_15MHz





5.2.6 B4_20MHz





6. Spurious Emission

6.1 Test Result

6.1.1 B4_1.4MHz

Band: 4 / Bandwidth: 1.4MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1710.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1754.3	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
16QAM	1710.7	1	0	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1754.3	1	0	Refer To Test Graph		Pass
			5	Refer To Test Graph		Pass
		6	0	Refer To Test Graph		Pass

6.1.2 B4_3MHz

Band: 4 / Bandwidth: 3MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1711.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1753.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
16QAM	1711.5	1	0	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1753.5	1	0	Refer To Test Graph		Pass
			14	Refer To Test Graph		Pass
		15	0	Refer To Test Graph		Pass

6.1.3 B4_5MHz

Band: 4 / Bandwidth: 5MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1712.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1752.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
16QAM	1712.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1752.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

6.1.4 B4_10MHz

Band: 4 / Bandwidth: 10MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1715	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1750	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

6.1.5 B4_15MHz

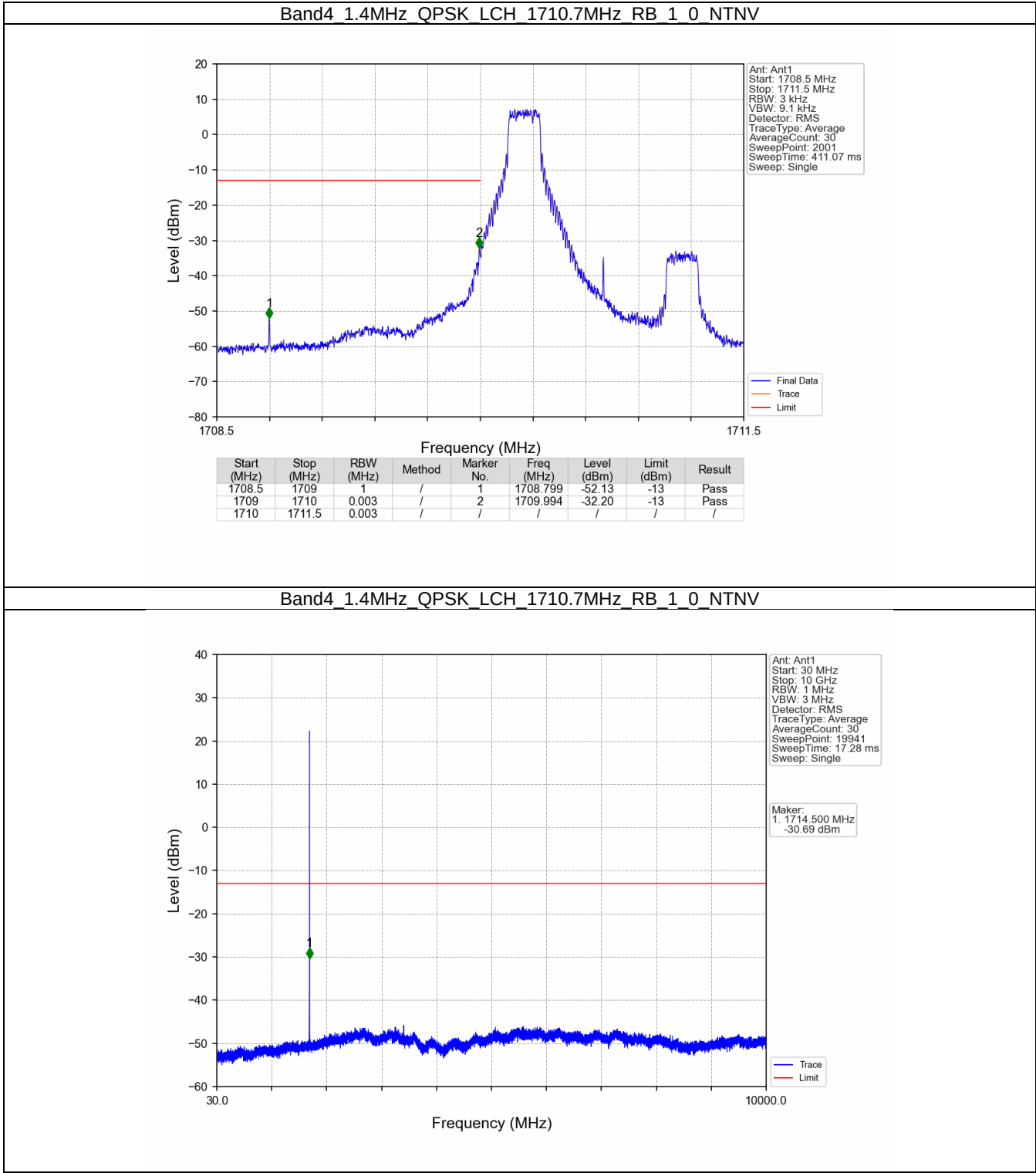
Band: 4 / Bandwidth: 15MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1717.5	1	0	Refer To Test Graph		Pass
		75	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1747.5	1	0	Refer To Test Graph		Pass
			74	Refer To Test Graph		Pass
		75	0	Refer To Test Graph		Pass

6.1.6 B4_20MHz

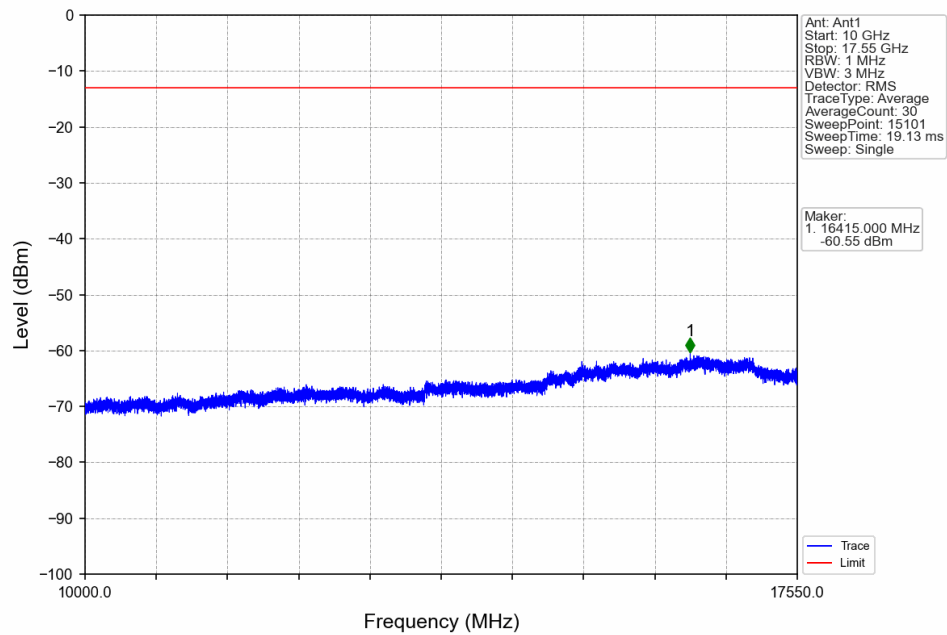
Band: 4 / Bandwidth: 20MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	1720	1	0	Refer To Test Graph		Pass
		100	0	Refer To Test Graph		Pass
	1732.5	1	0	Refer To Test Graph		Pass
	1745	1	0	Refer To Test Graph		Pass
			99	Refer To Test Graph		Pass
		100	0	Refer To Test Graph		Pass

6.2 Test Graph

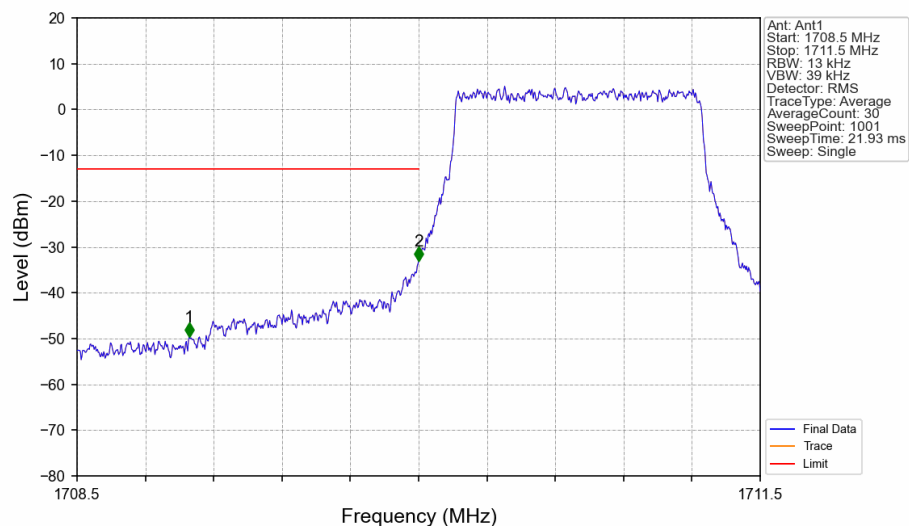
6.2.1 B4_1.4MHz



Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTV

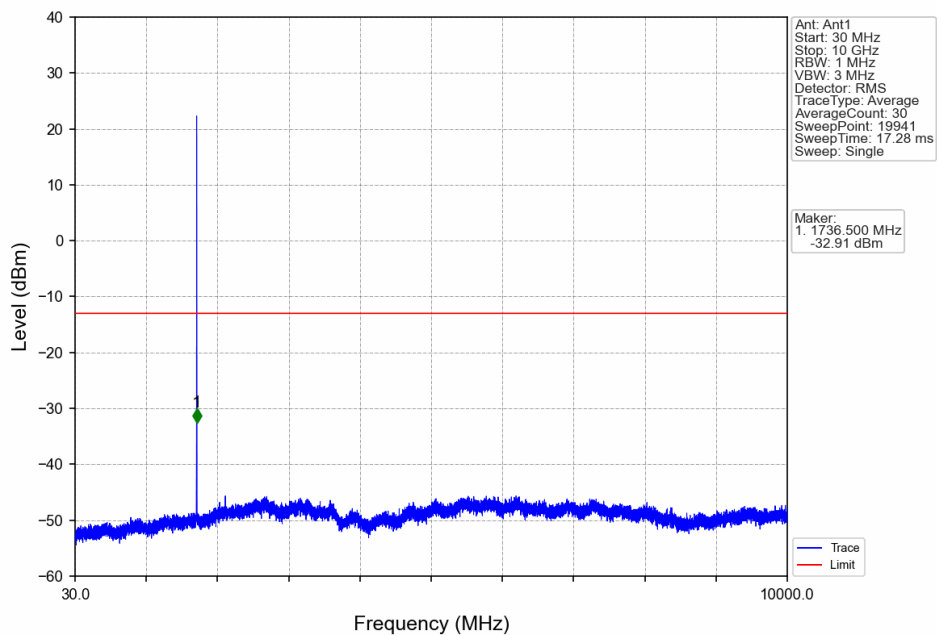


Band4 1.4MHz QPSK LCH 1710.7MHz RB 6 0 NTV

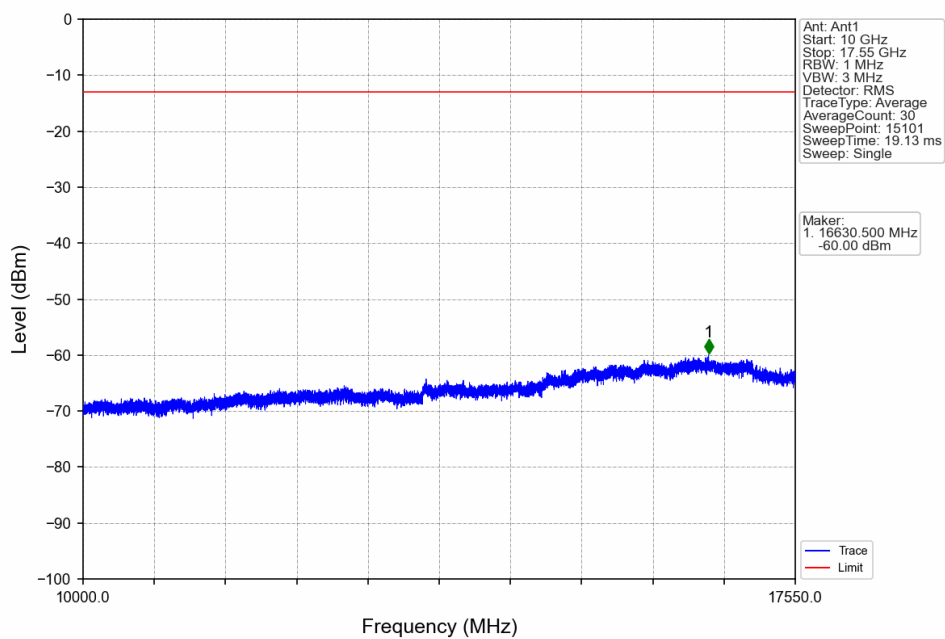


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1708.5	1709	1	/	1	1708.992	-49.65	-13	Pass
1709	1710	0.013	/	2	1710.000	-33.12	-13	Pass
1710	1711.5	0.013	/	/	/	/	/	/

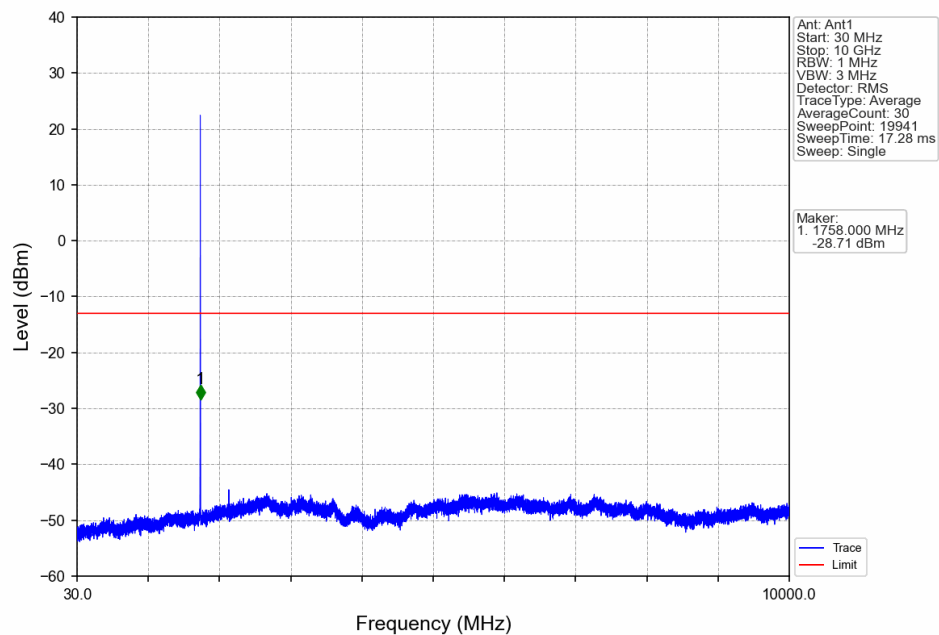
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



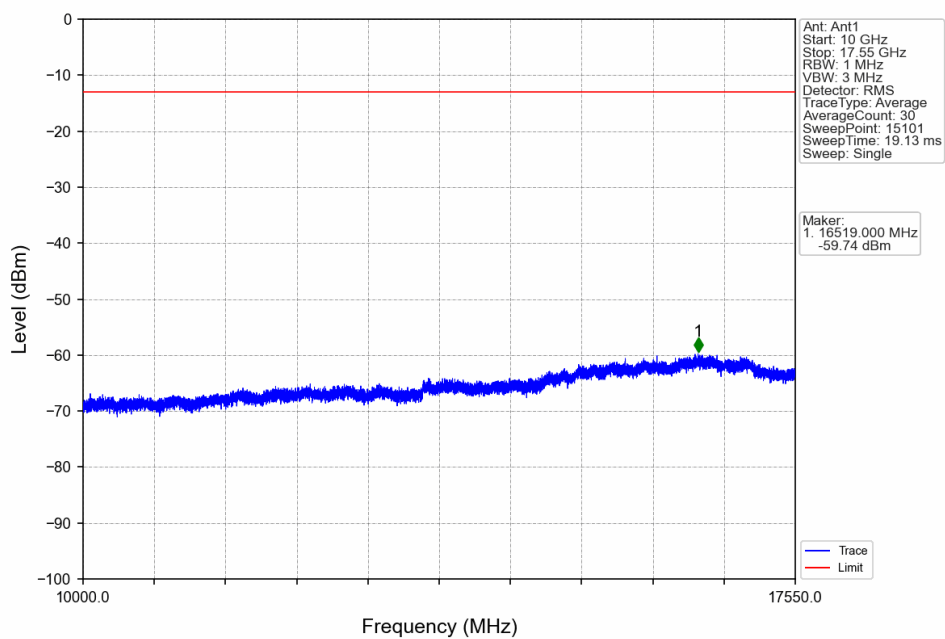
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



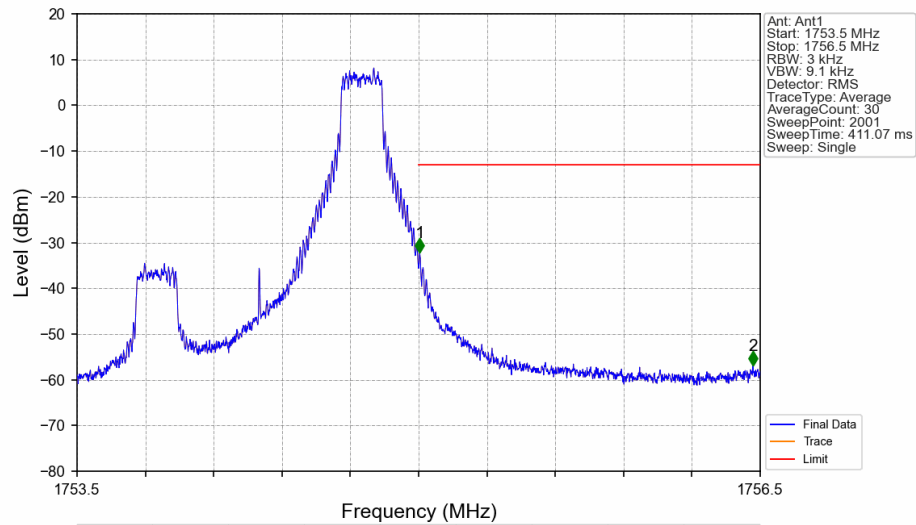
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV



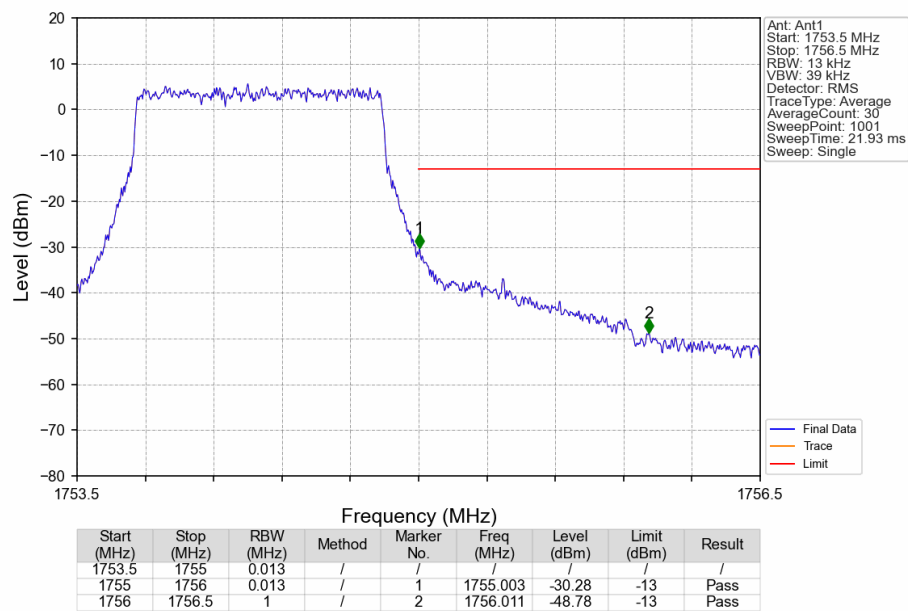
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV

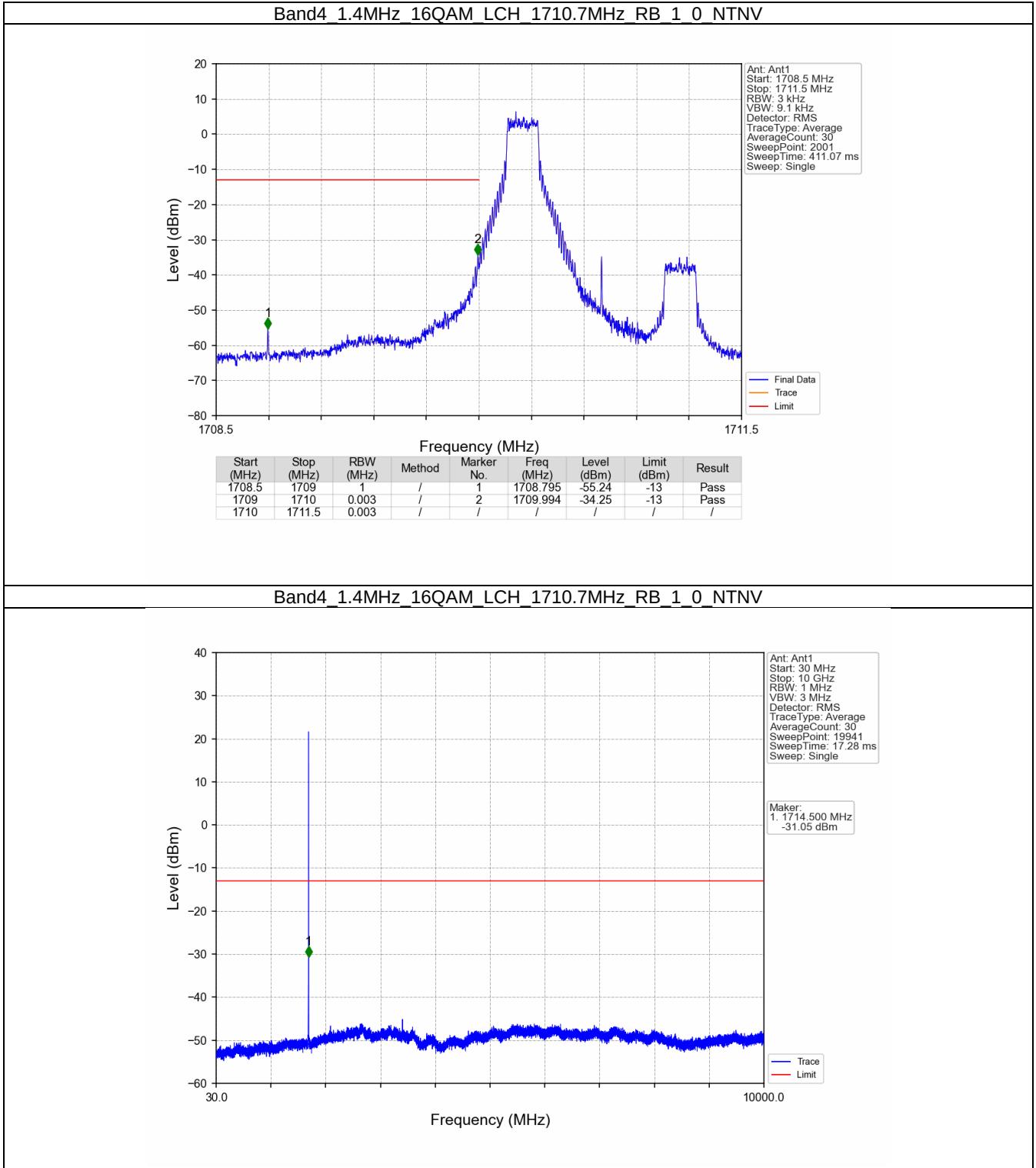


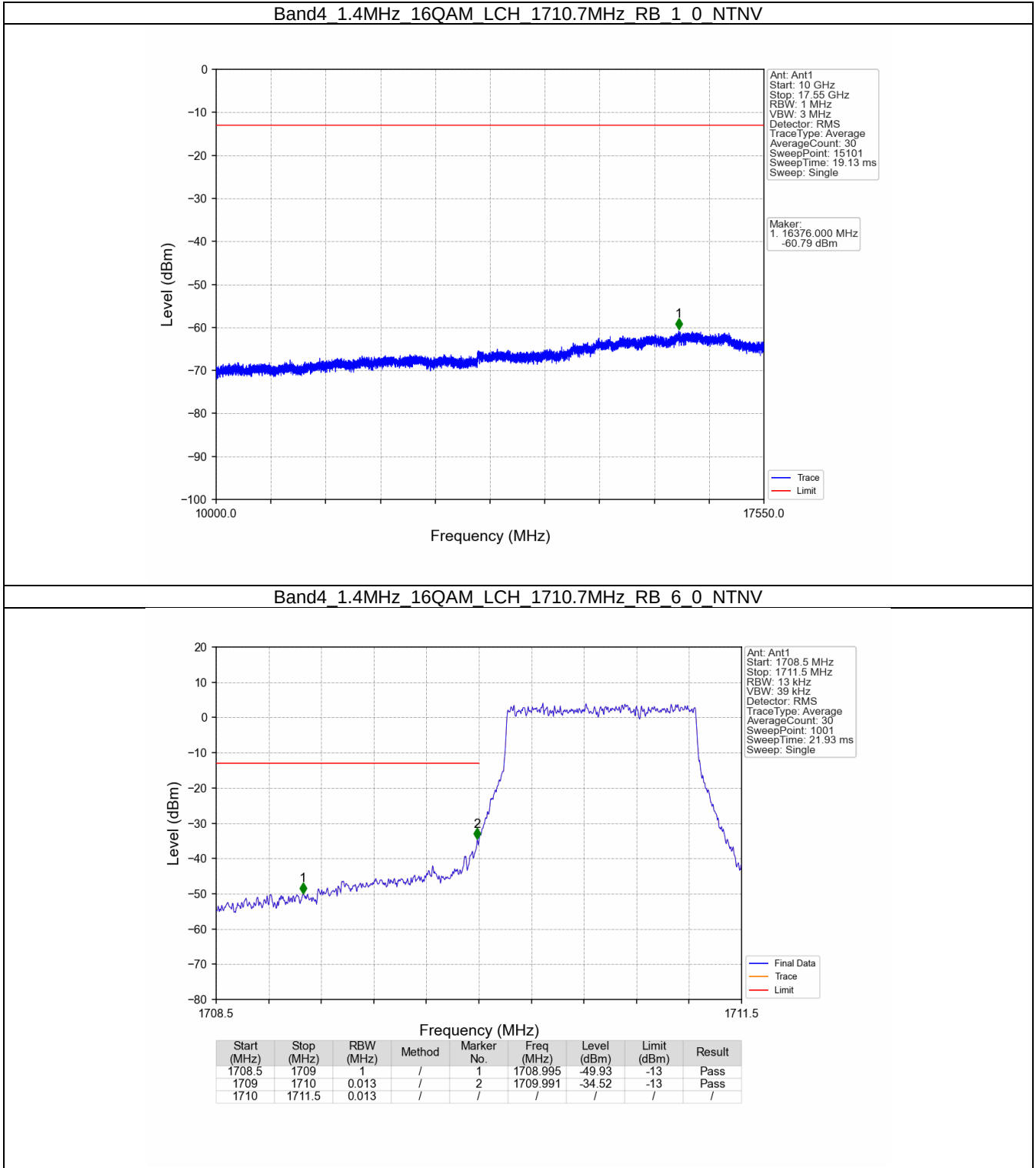
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 5 NTNV



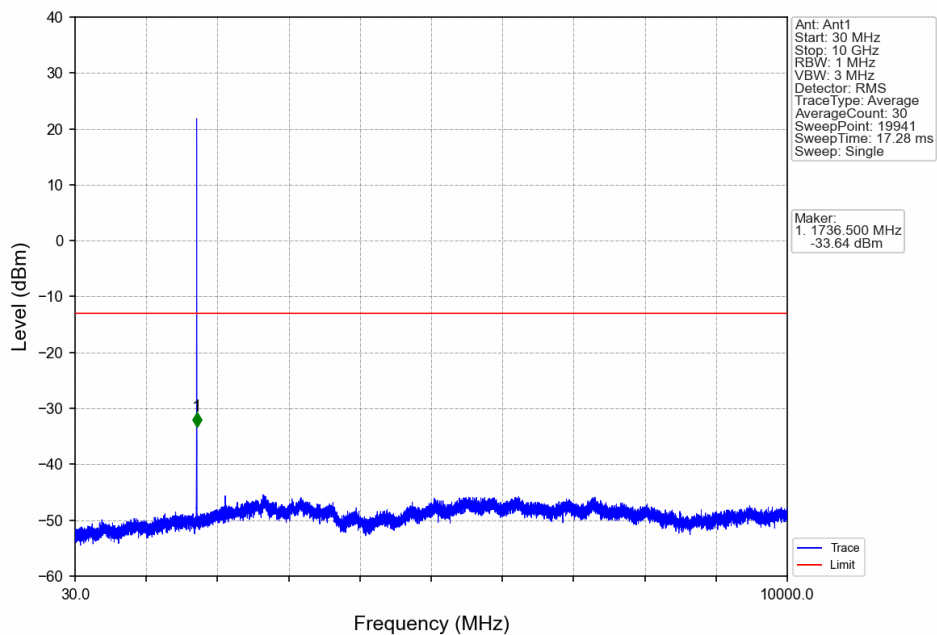
Band4 1.4MHz QPSK HCH 1754.3MHz RB 6 0 NTNV



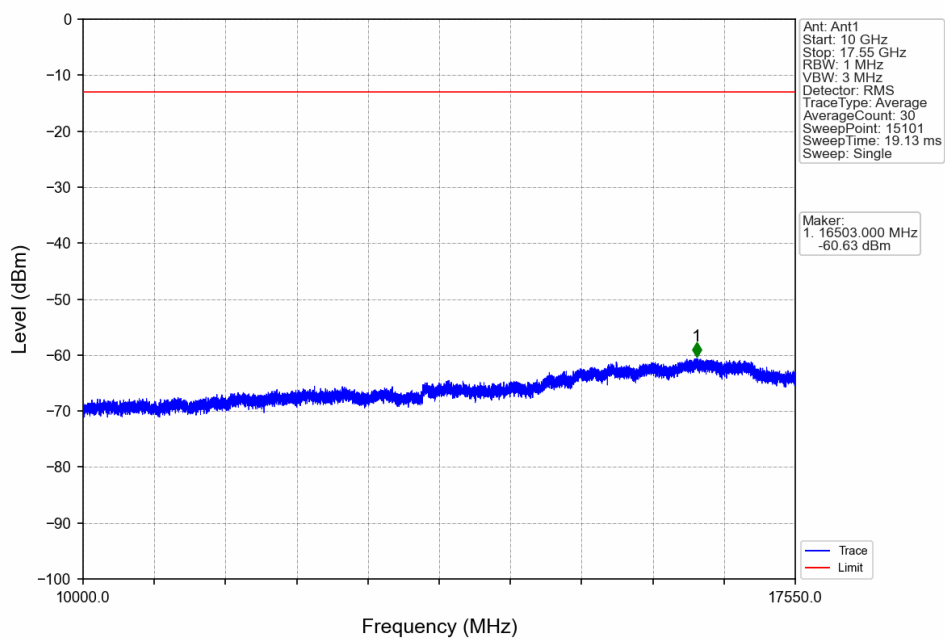




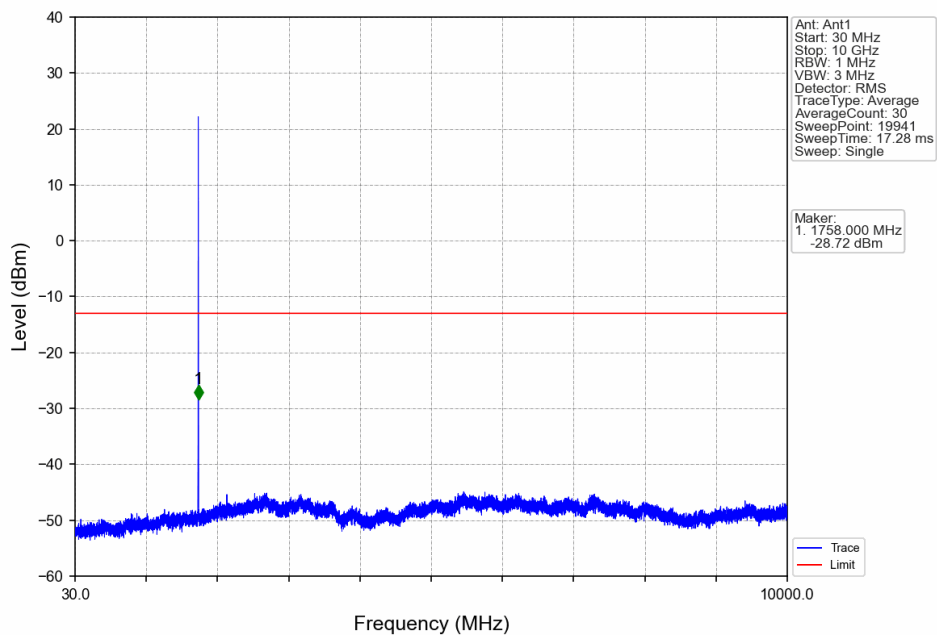
Band4 1.4MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



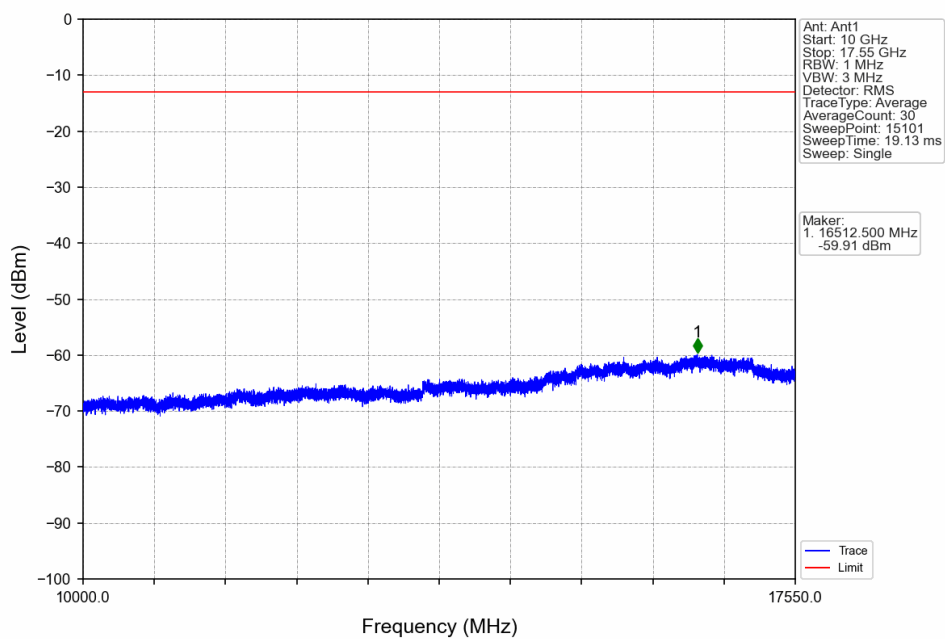
Band4 1.4MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



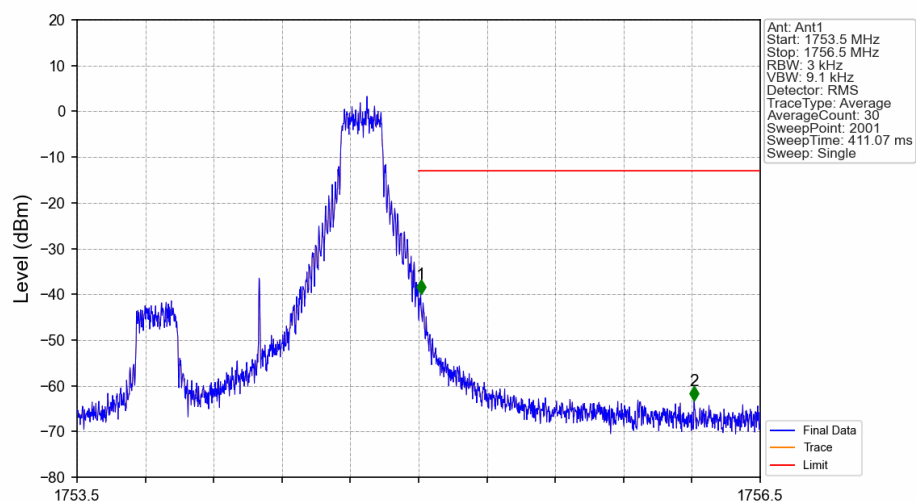
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTV



Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 0 NTV

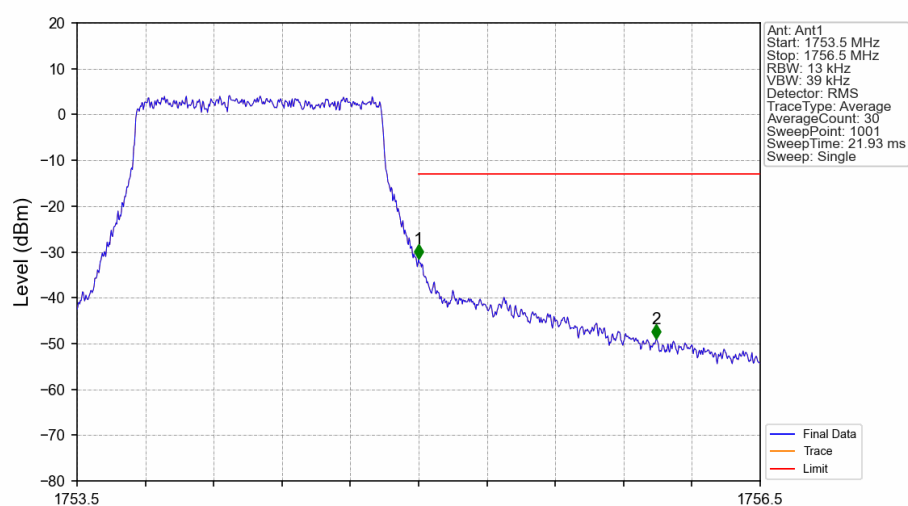


Band4 1.4MHz 16QAM HCH 1754.3MHz RB 1 5 NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1753.5	1755	0.003	/	/	/	/	/	/
1755	1756	0.003	/	1	1755.009	-39.96	-13	Pass
1756	1756.5	1	/	2	1756.210	-63.30	-13	Pass

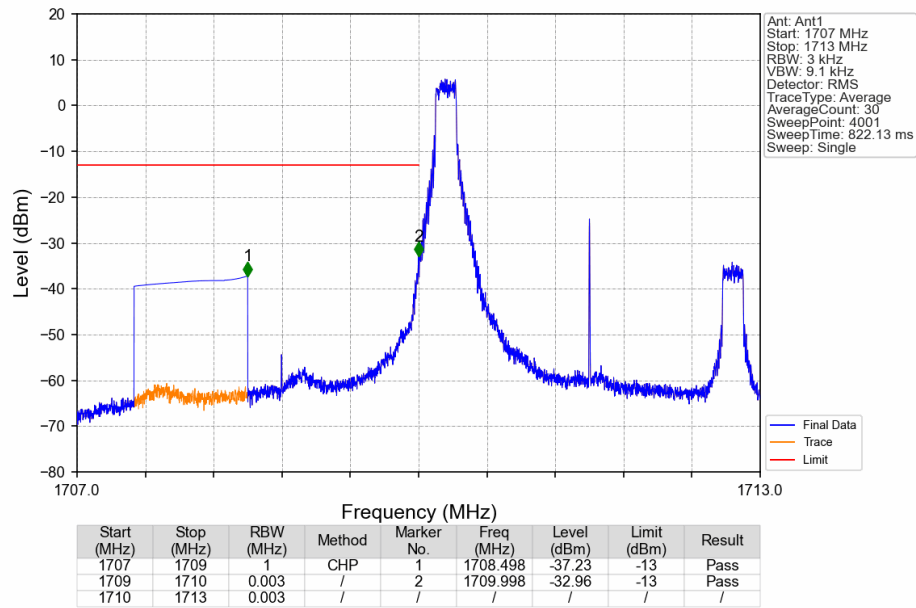
Band4 1.4MHz 16QAM HCH 1754.3MHz RB 6 0 NTNV



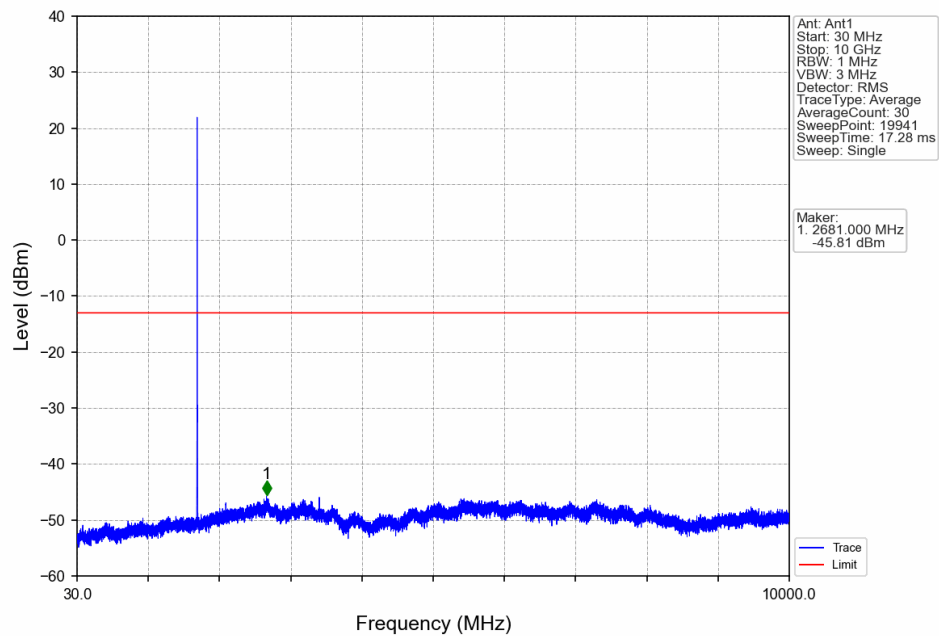
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1753.5	1755	0.013	/	/	/	/	/	/
1755	1756	0.013	/	1	1755.000	-31.54	-13	Pass
1756	1756.5	1	/	2	1756.044	-48.96	-13	Pass

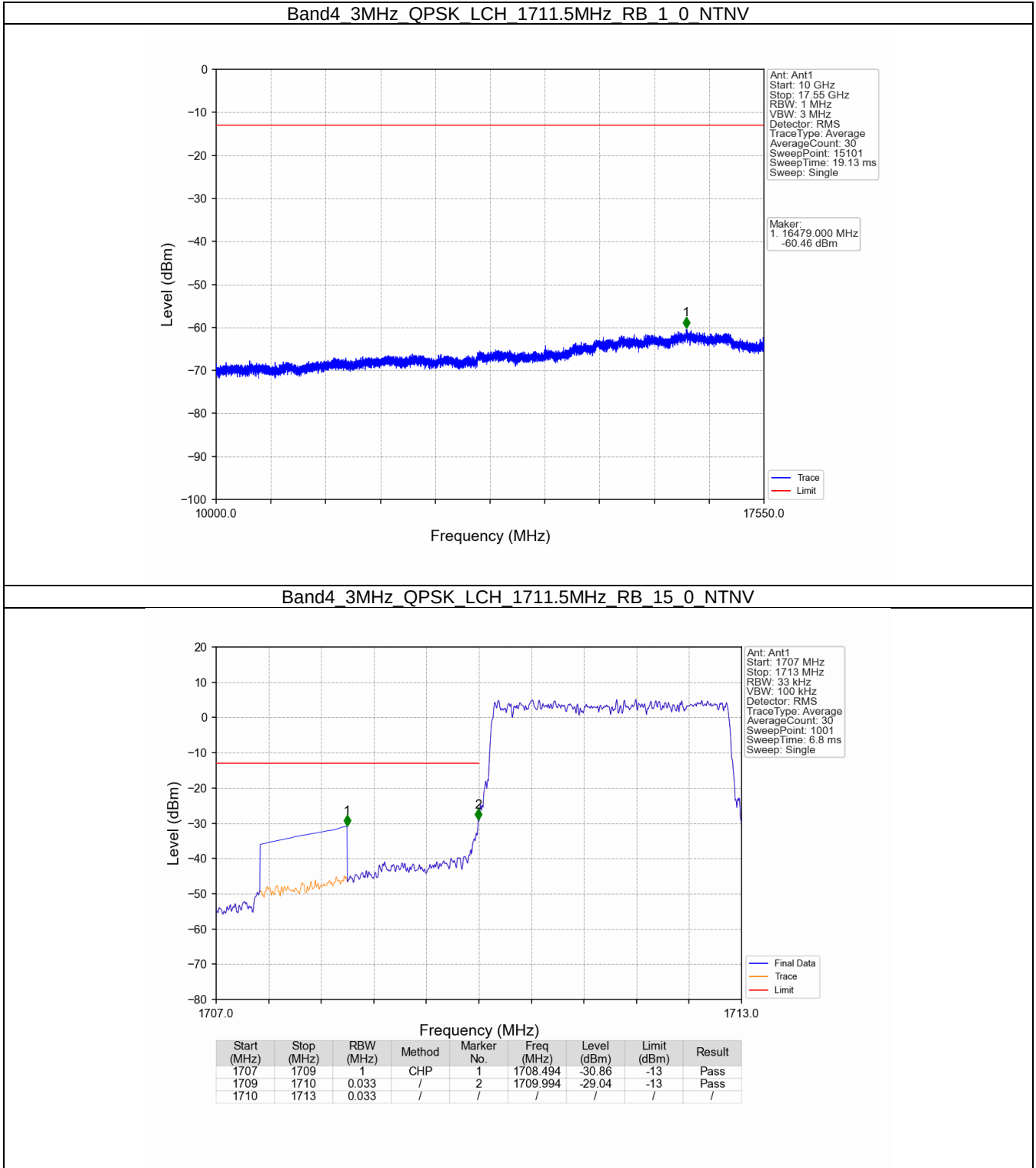
6.2.2 B4_3MHz

Band4_3MHz_QPSK_LCH_1711.5MHz_RB_1_0_NTNV

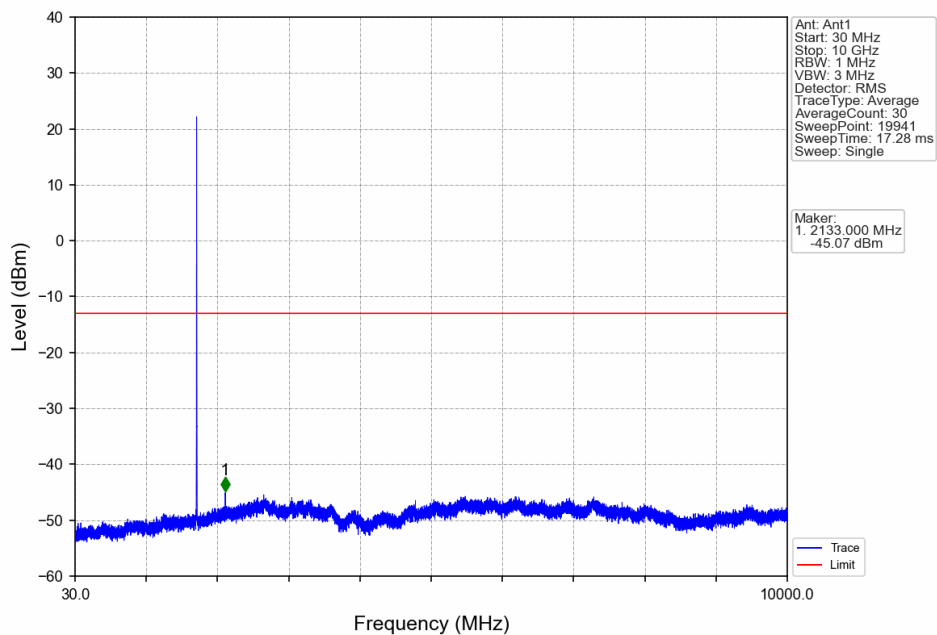


Band4_3MHz_QPSK_LCH_1711.5MHz_RB_1_0_NTNV

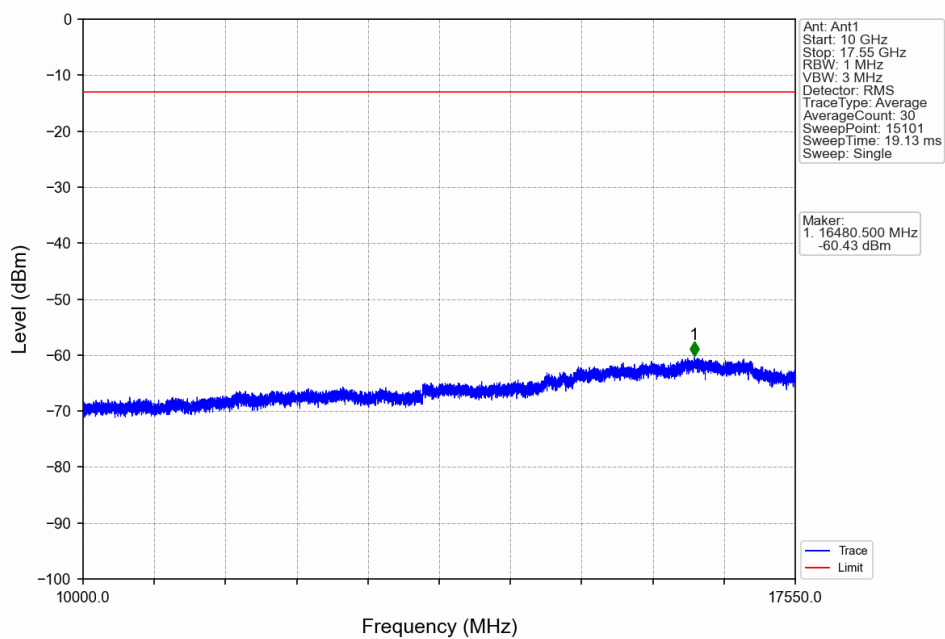




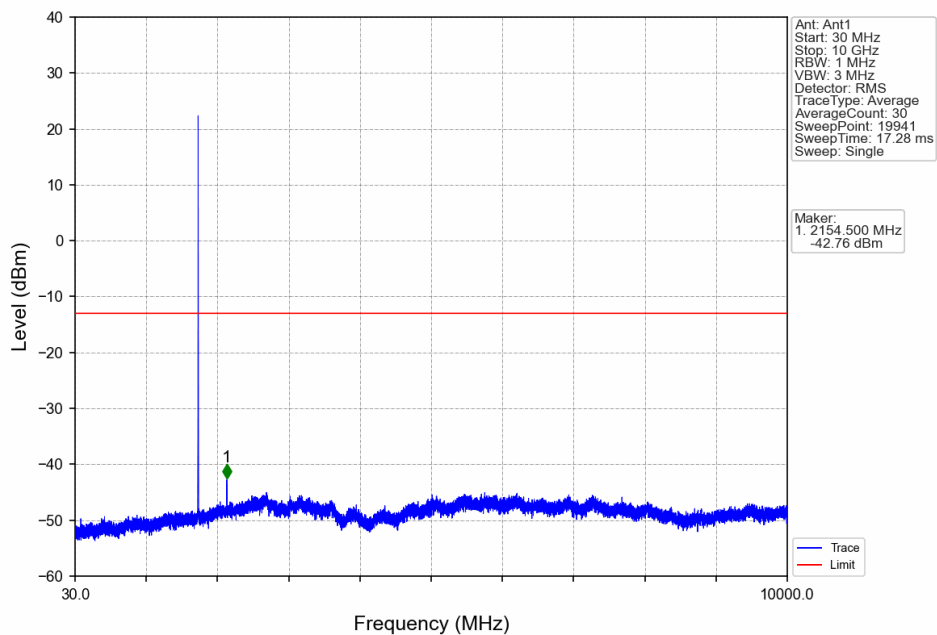
Band4_3MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



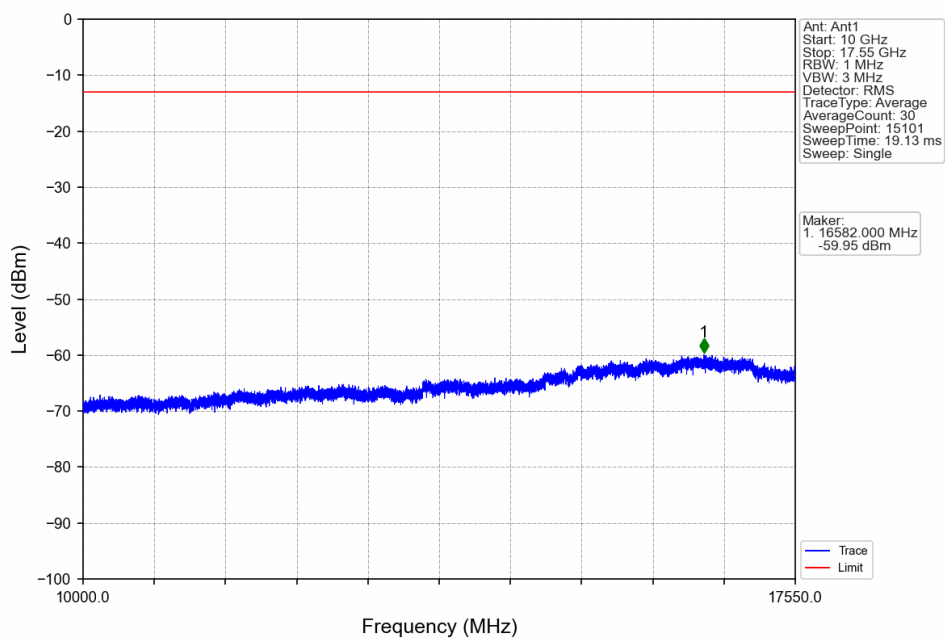
Band4_3MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



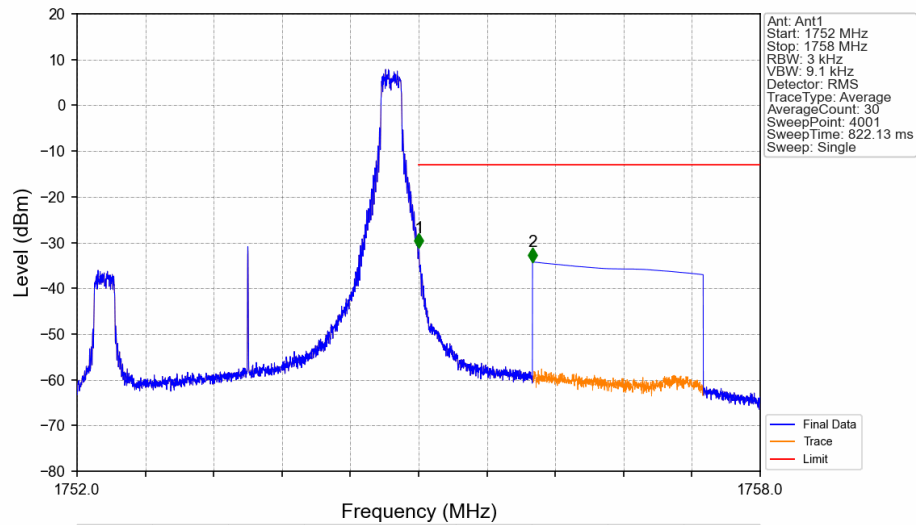
Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN



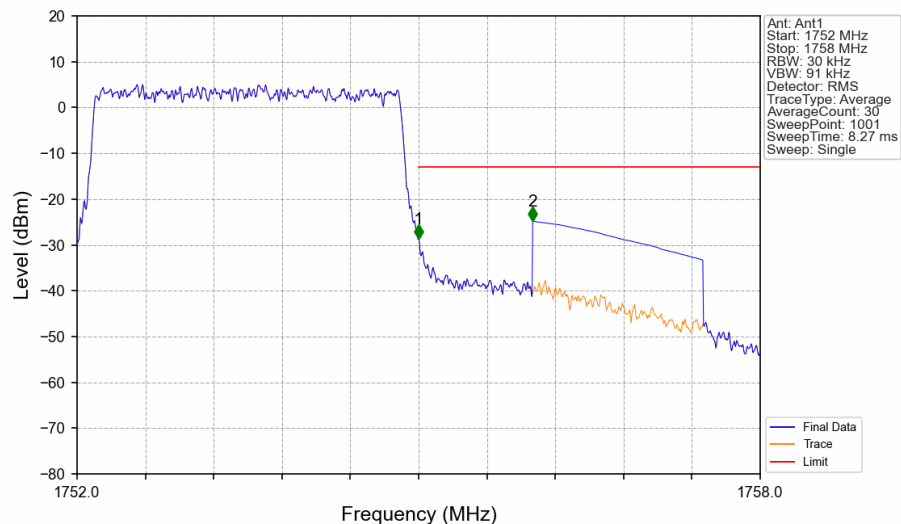
Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN

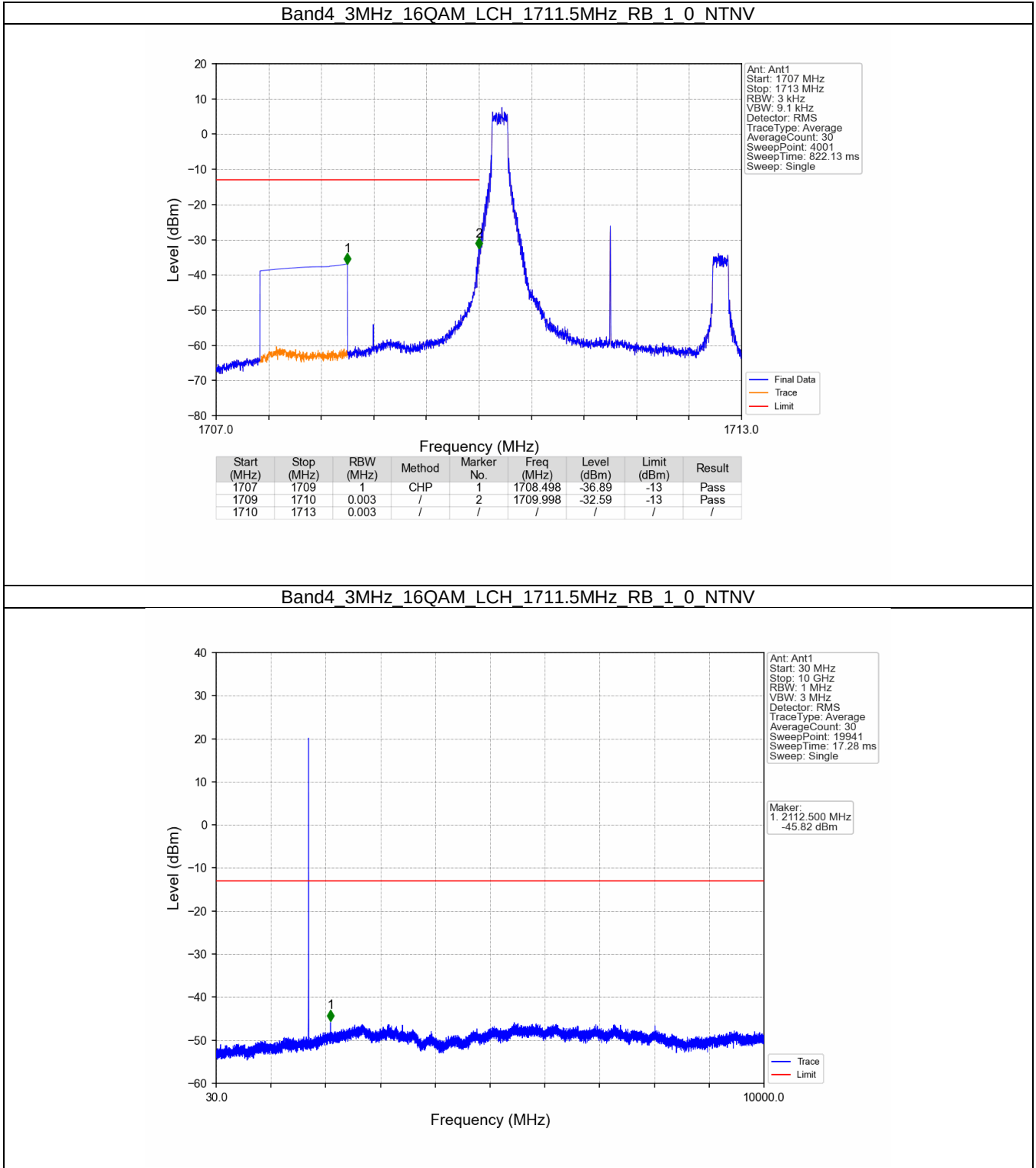


Band4 3MHz QPSK HCH 1753.5MHz RB 1 14 NTV

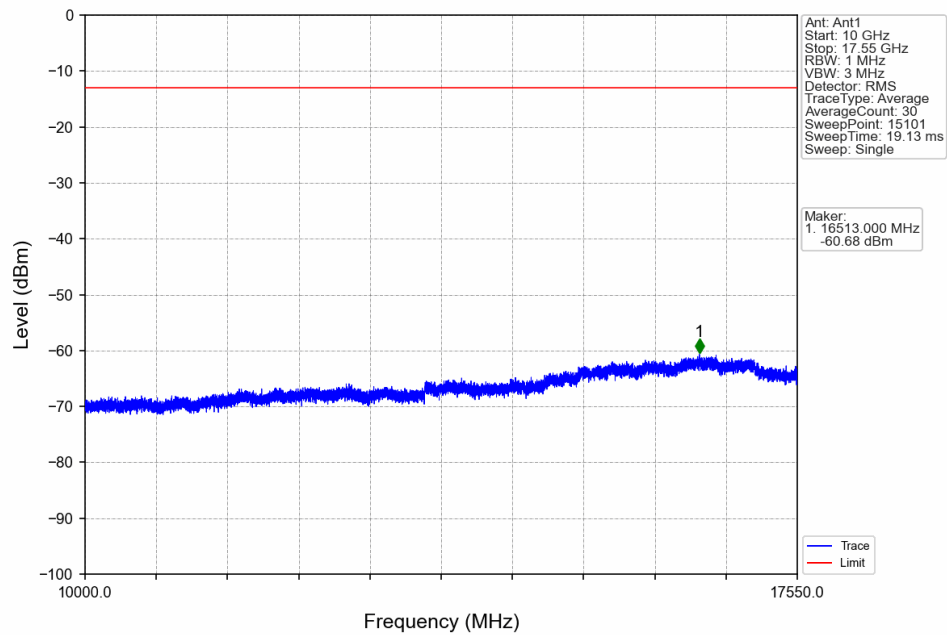


Band4 3MHz QPSK HCH 1753.5MHz RB 15 0 NTV

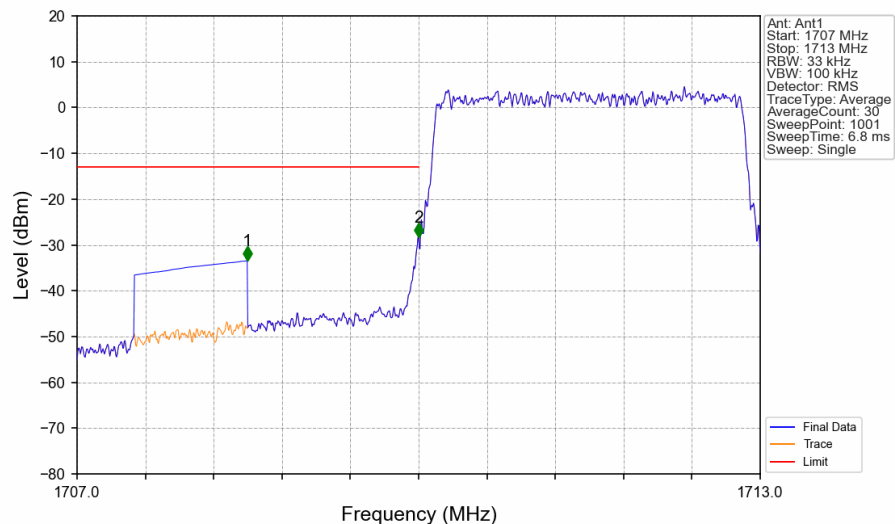




Band4 3MHz 16QAM LCH 1711.5MHz RB 1 0 NTNV

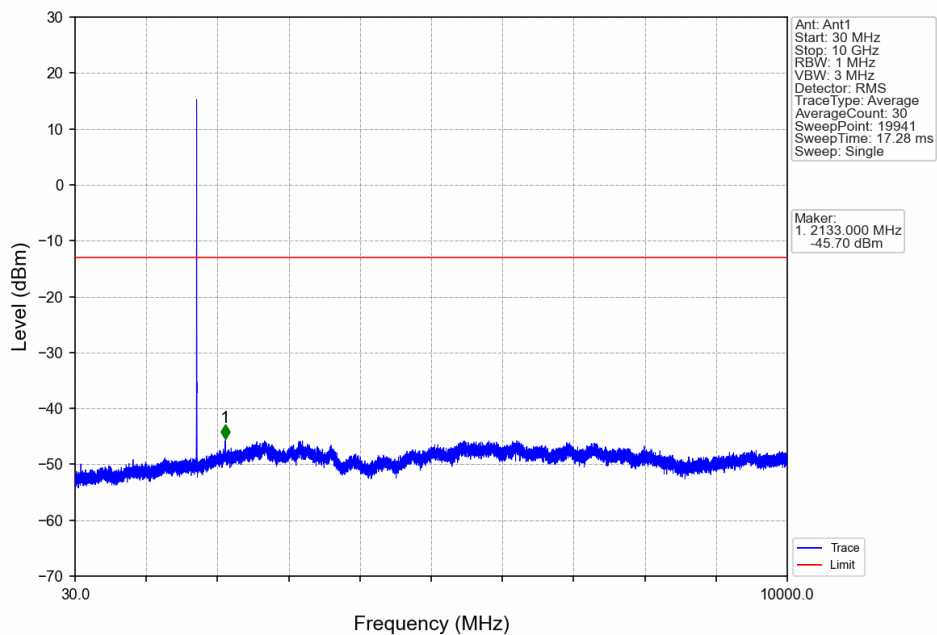


Band4 3MHz 16QAM LCH 1711.5MHz RB 15 0 NTNV

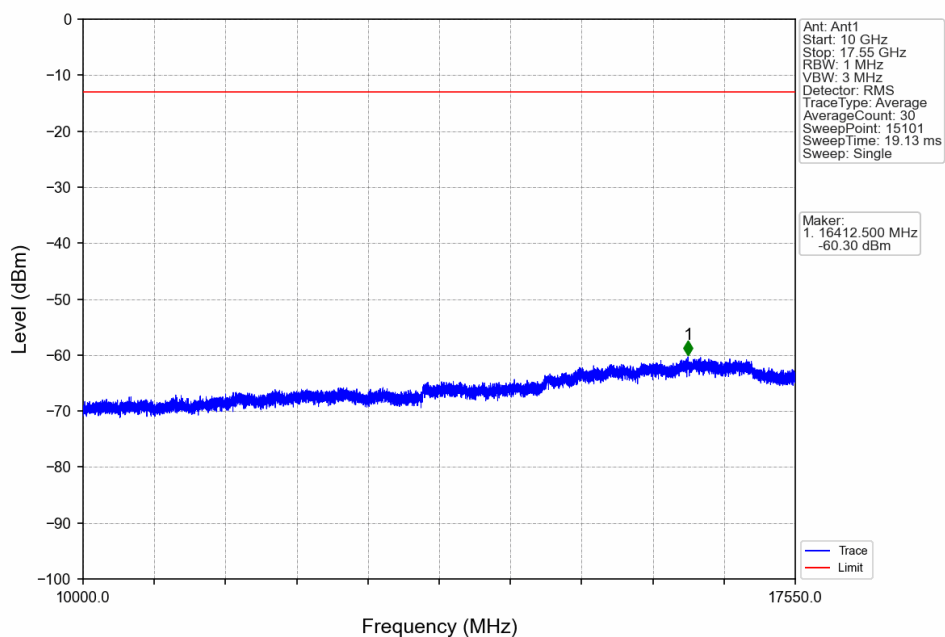


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1707	1709	1	CHP	1	1708.494	-33.47	-13	Pass
1709	1710	0.033	/	2	1710.000	-28.27	-13	Pass
1710	1713	0.033	/	/	/	/	/	/

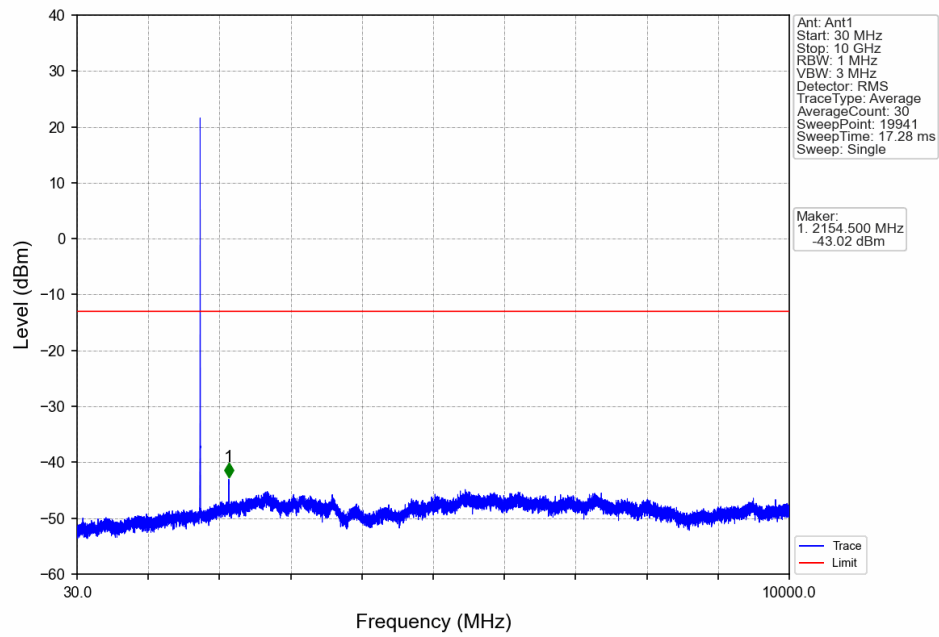
Band4 3MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



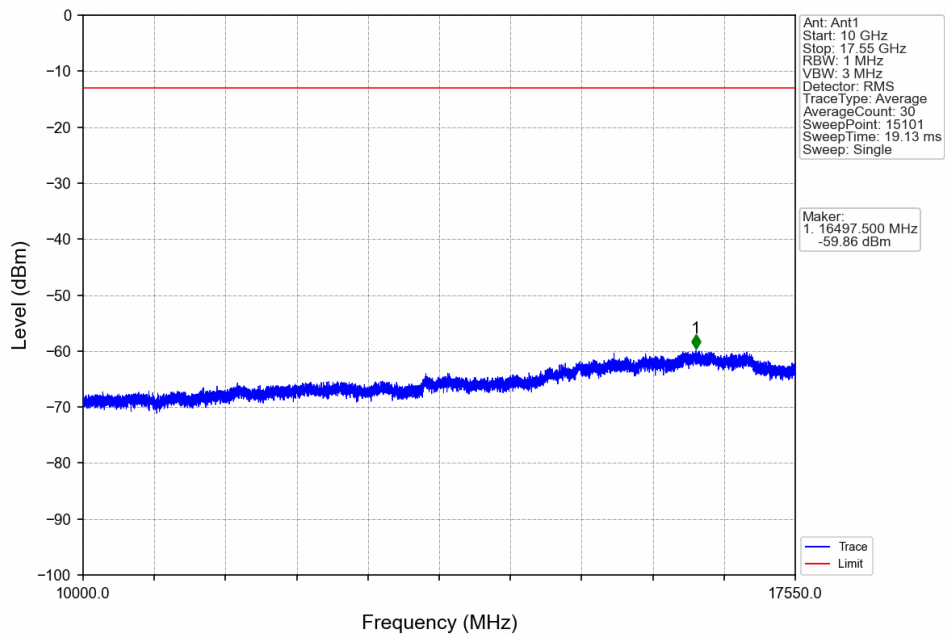
Band4 3MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



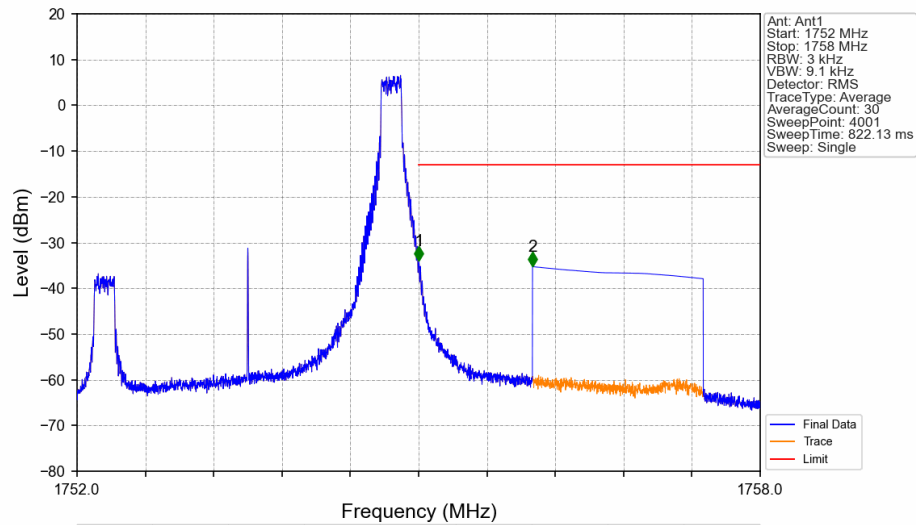
Band4 3MHz 16QAM HCH 1753.5MHz RB 1 0 NTV



Band4 3MHz 16QAM HCH 1753.5MHz RB 1 0 NTV

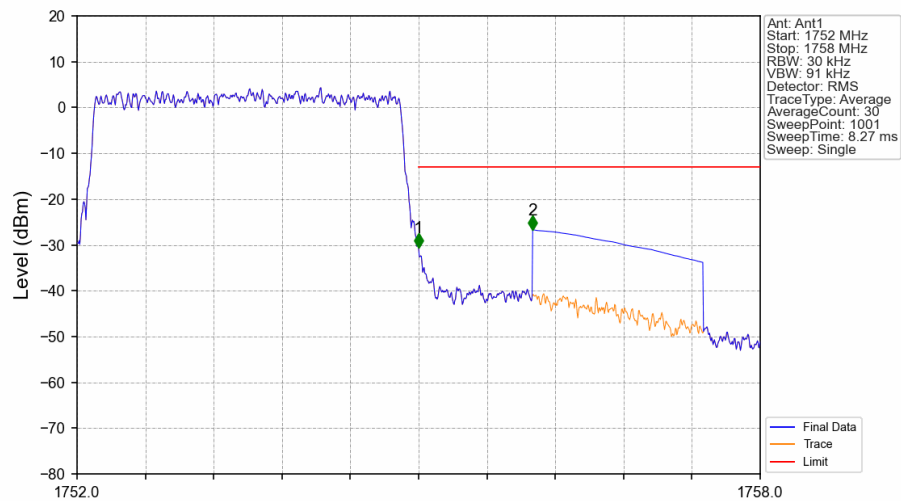


Band4 3MHz 16QAM HCH 1753.5MHz RB 1 14 NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.003	/	/	/	/	/	/
1755	1756	0.003	/	1	1755.003	-33.92	-13	Pass
1756	1758	1	CHP	2	1756.001	-35.27	-13	Pass

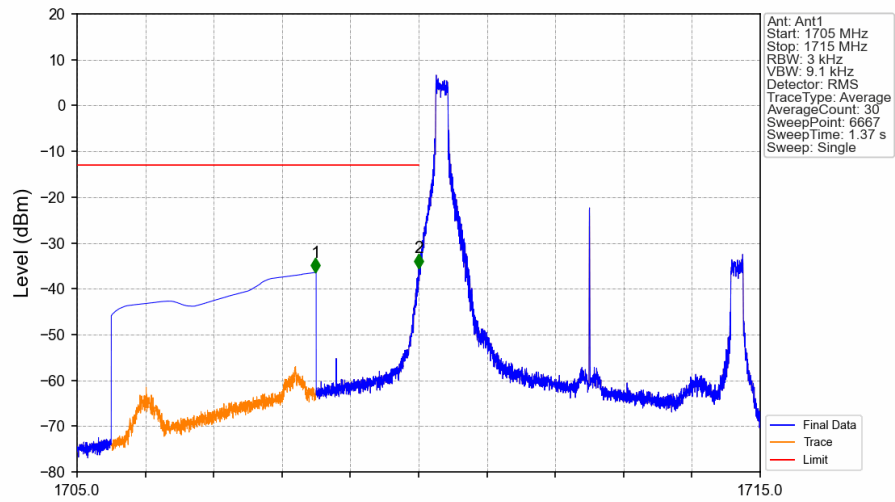
Band4 3MHz 16QAM HCH 1753.5MHz RB 15 0 NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1752	1755	0.03	/	/	/	/	/	/
1755	1756	0.03	/	1	1755.000	-30.66	-13	Pass
1756	1758	1	CHP	2	1756.002	-26.69	-13	Pass

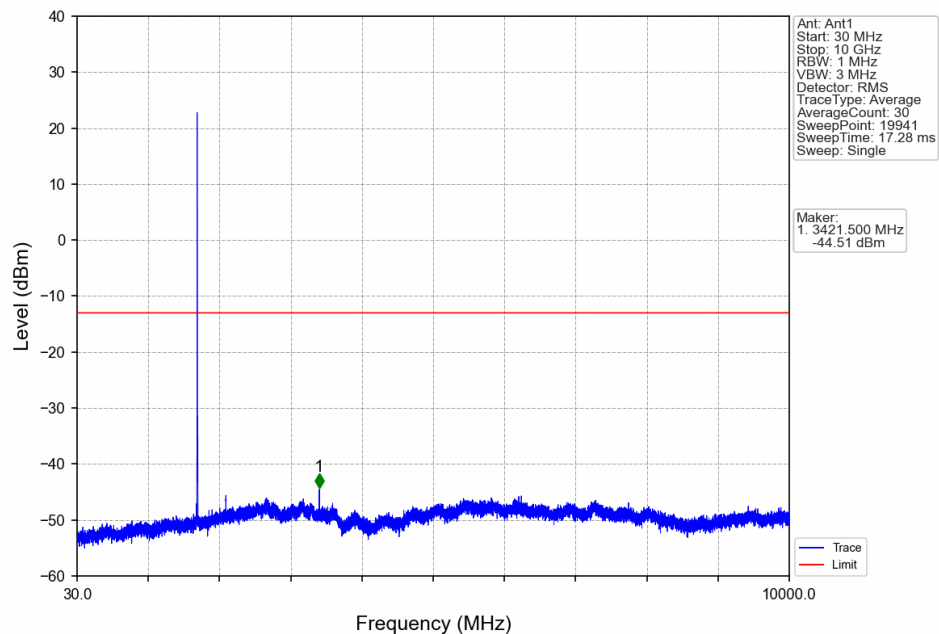
6.2.3 B4_5MHz

Band4_5MHz_QPSK_LCH_1712.5MHz_RB_1_0_NTNV

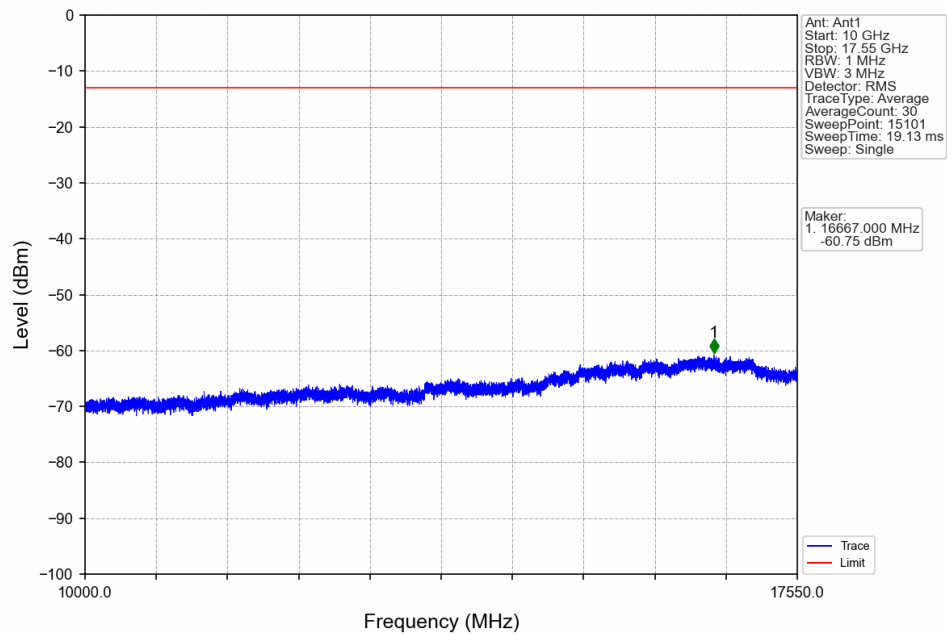


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1705	1709	1	CHP	1	1708.488	-36.45	-13	Pass
1709	1710	0.003	/	2	1710.000	-35.46	-13	Pass
1710	1715	0.003	/	/	/	/	/	/

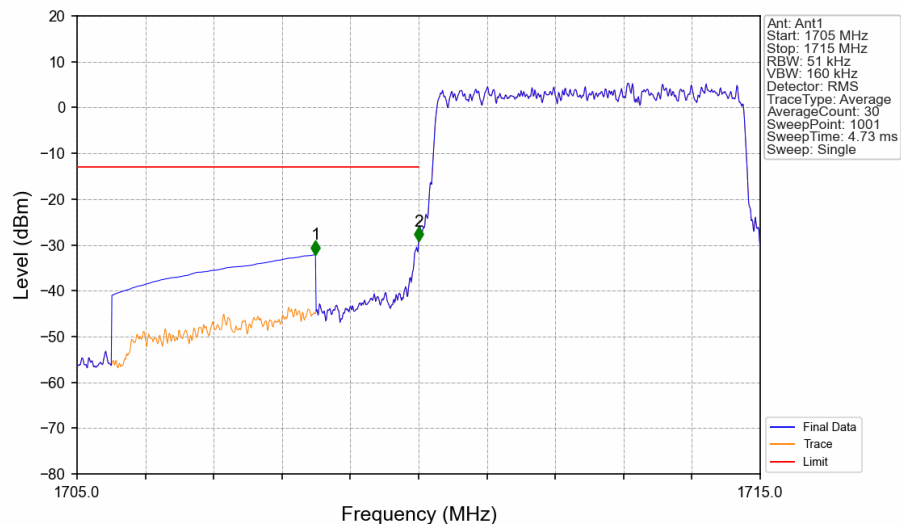
Band4_5MHz_QPSK_LCH_1712.5MHz_RB_1_0_NTNV



Band4 5MHz QPSK LCH 1712.5MHz RB 1 0 NTNV

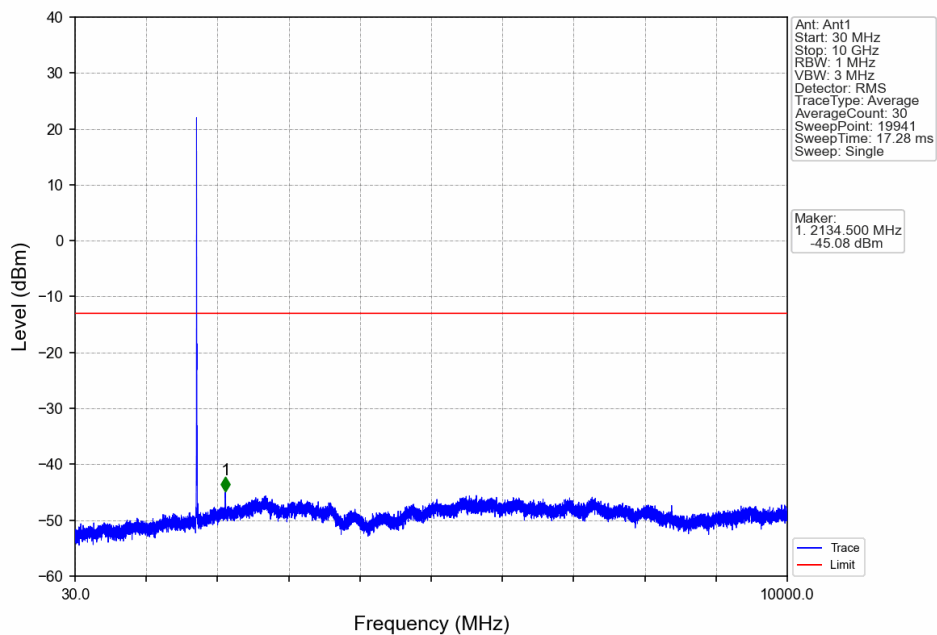


Band4 5MHz QPSK LCH 1712.5MHz RB 25 0 NTNV

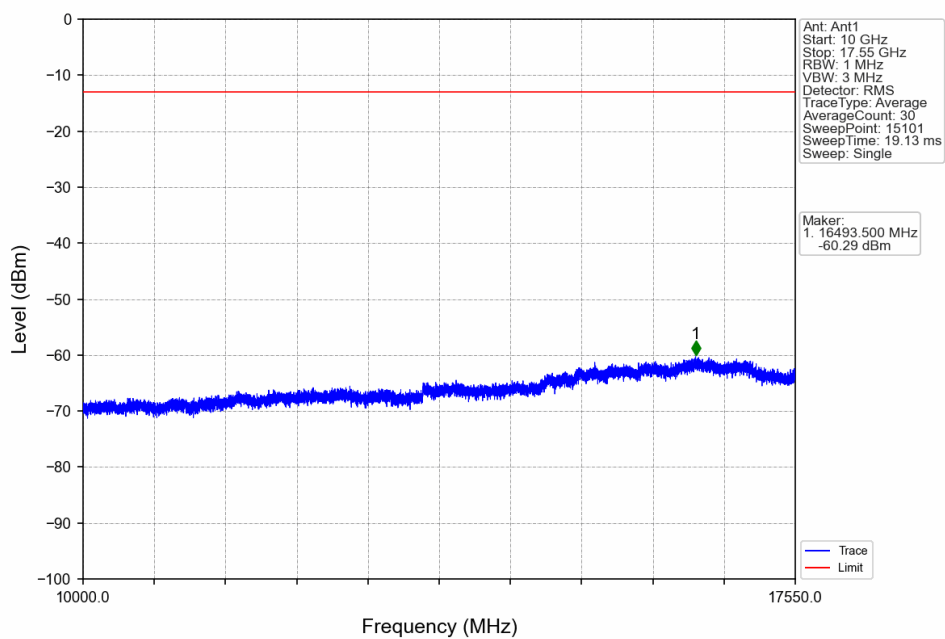


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1705	1709	1	CHP	1	1708.490	-32.14	-13	Pass
1709	1710	0.051	/	2	1710.000	-29.24	-13	Pass
1710	1715	0.051	/	/	/	/	/	/

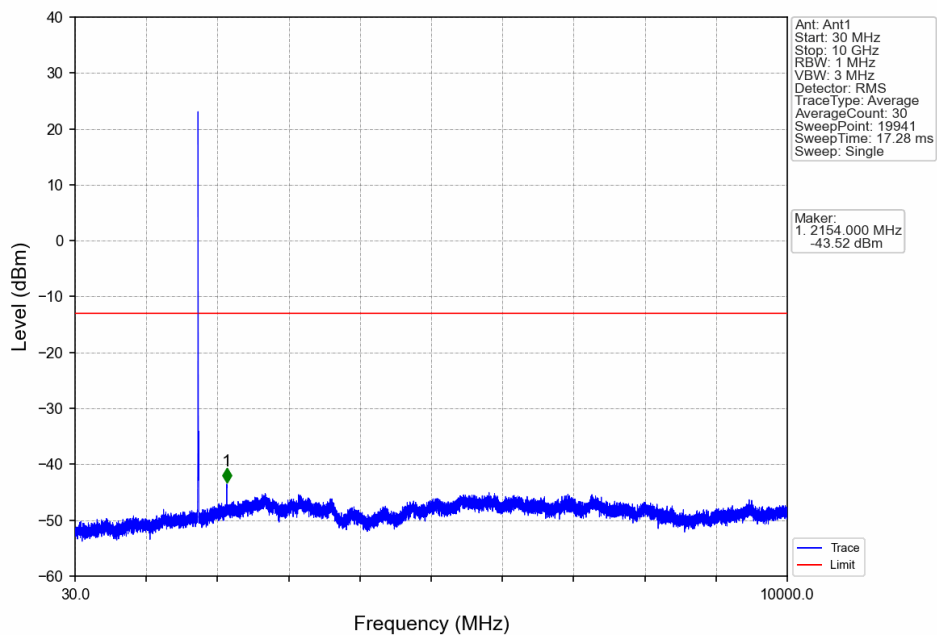
Band4 5MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



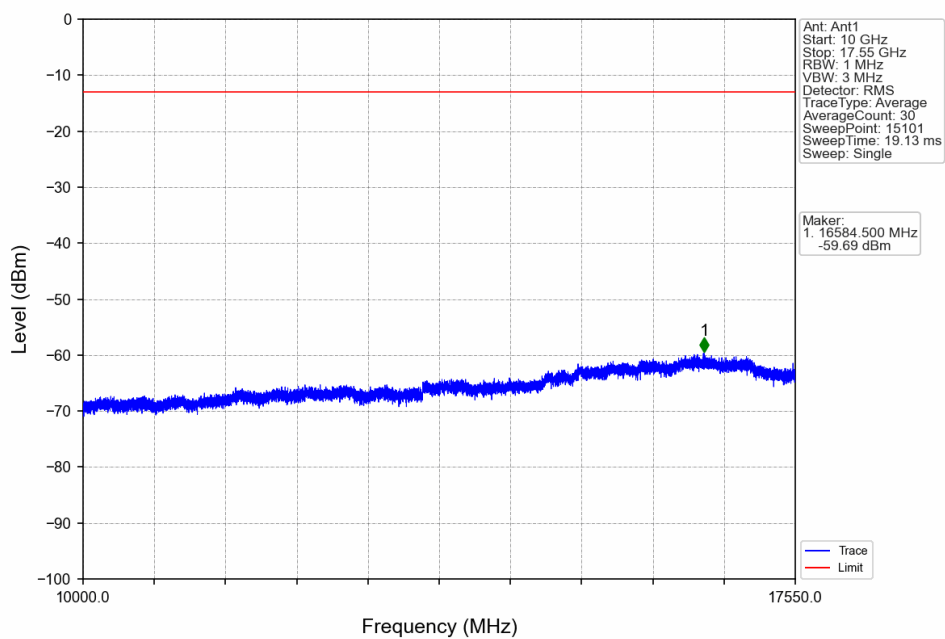
Band4 5MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



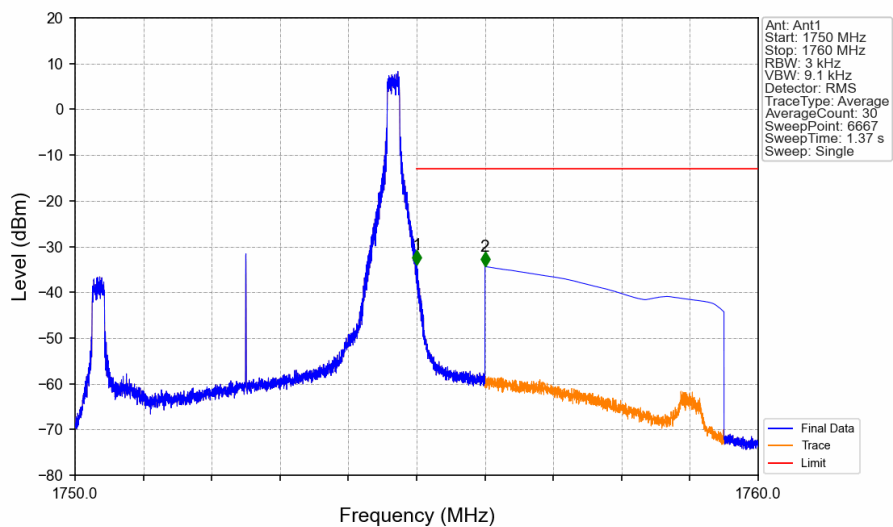
Band4 5MHz QPSK HCH 1752.5MHz RB 1 0 NTNV



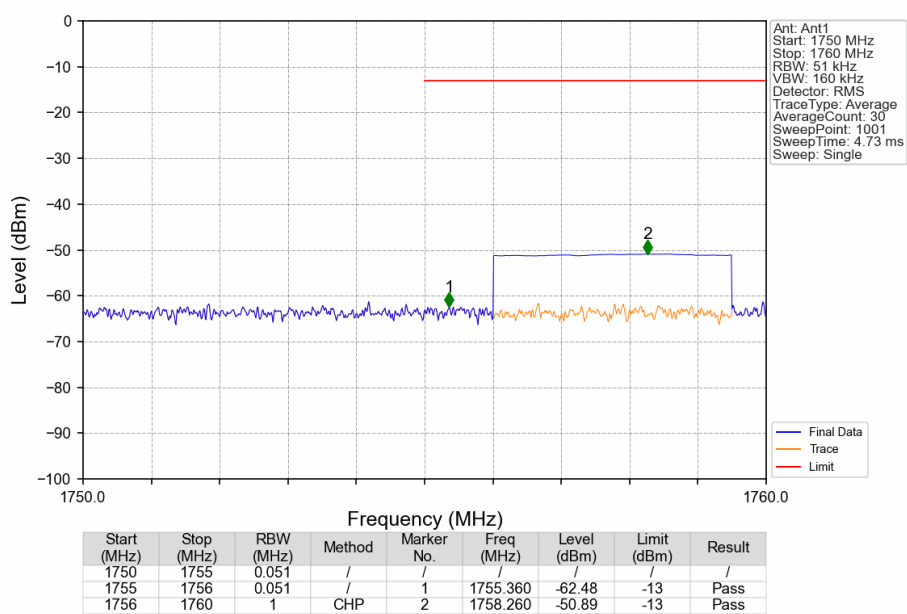
Band4 5MHz QPSK HCH 1752.5MHz RB 1 0 NTNV

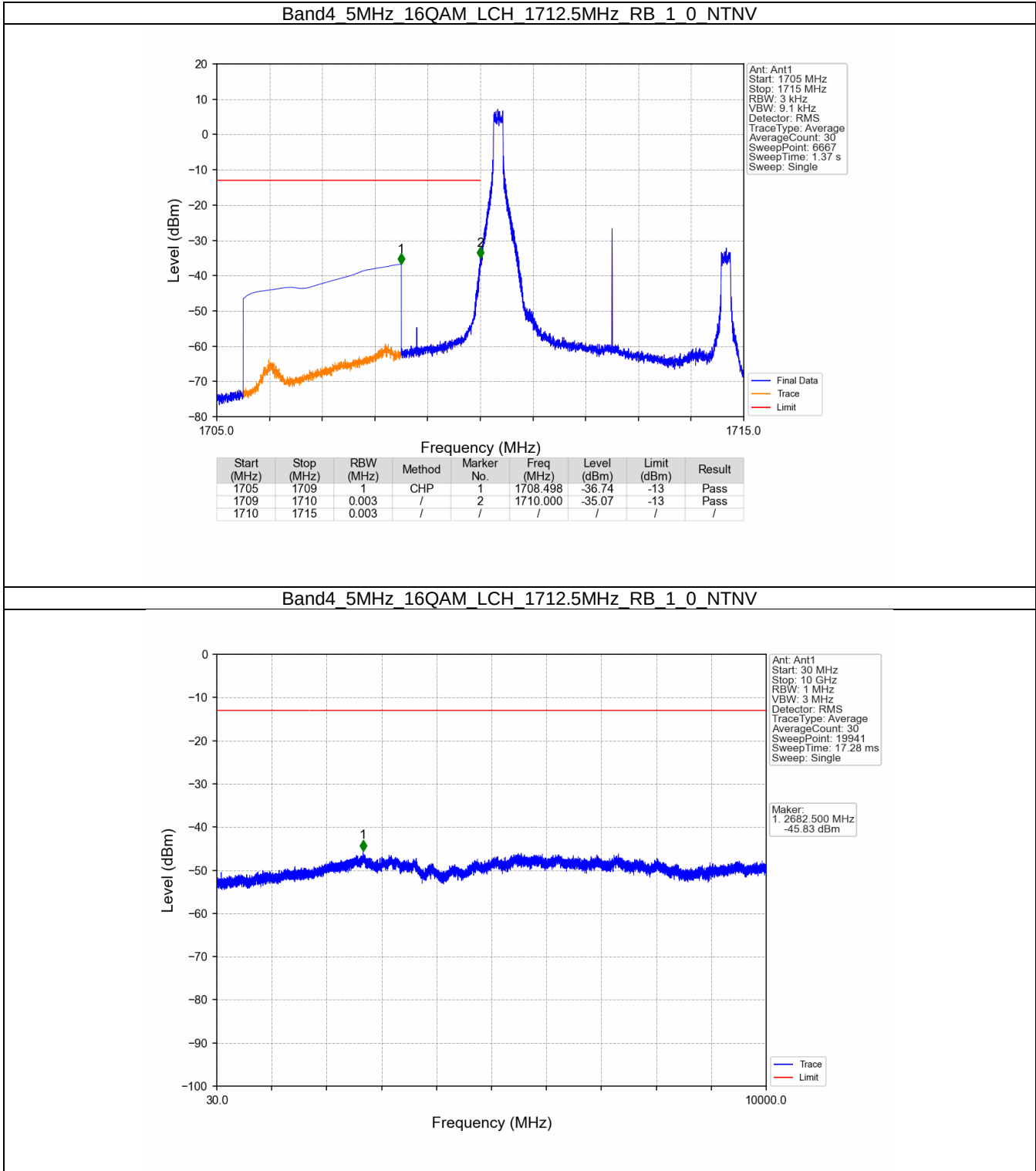


Band4 5MHz QPSK HCH 1752.5MHz RB 1 24 NTV

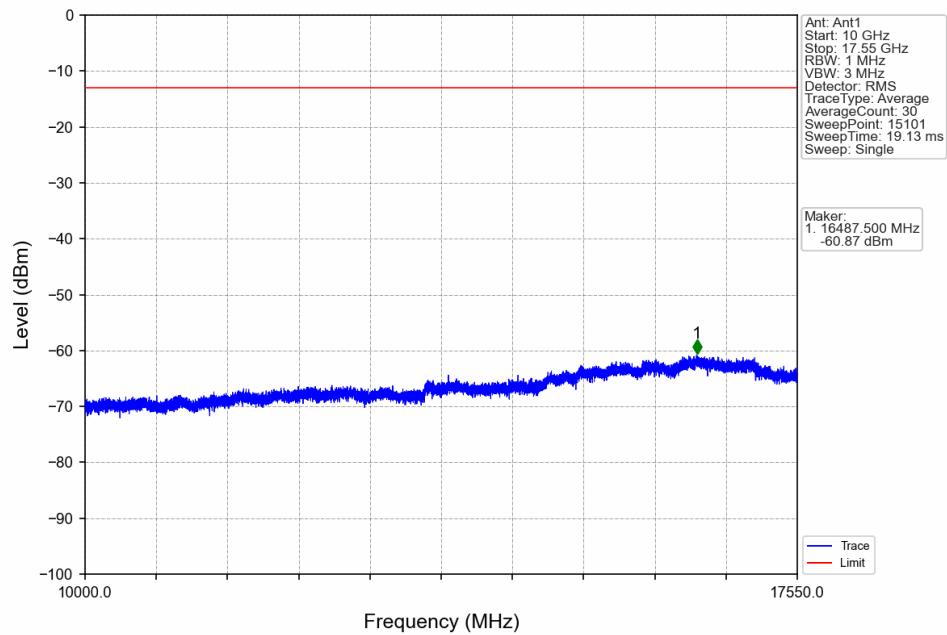


Band4 5MHz QPSK HCH 1752.5MHz RB 25 0 NTV

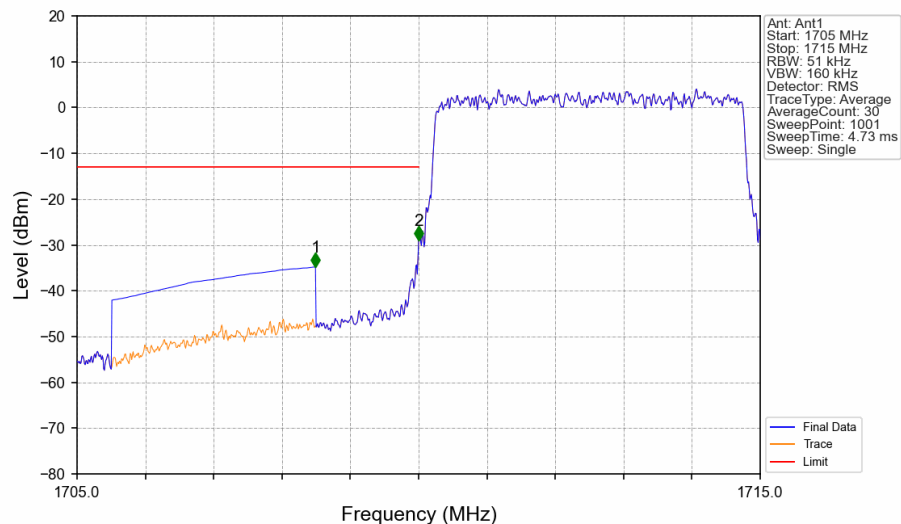




Band4 5MHz 16QAM LCH 1712.5MHz RB 1 0 NTNV

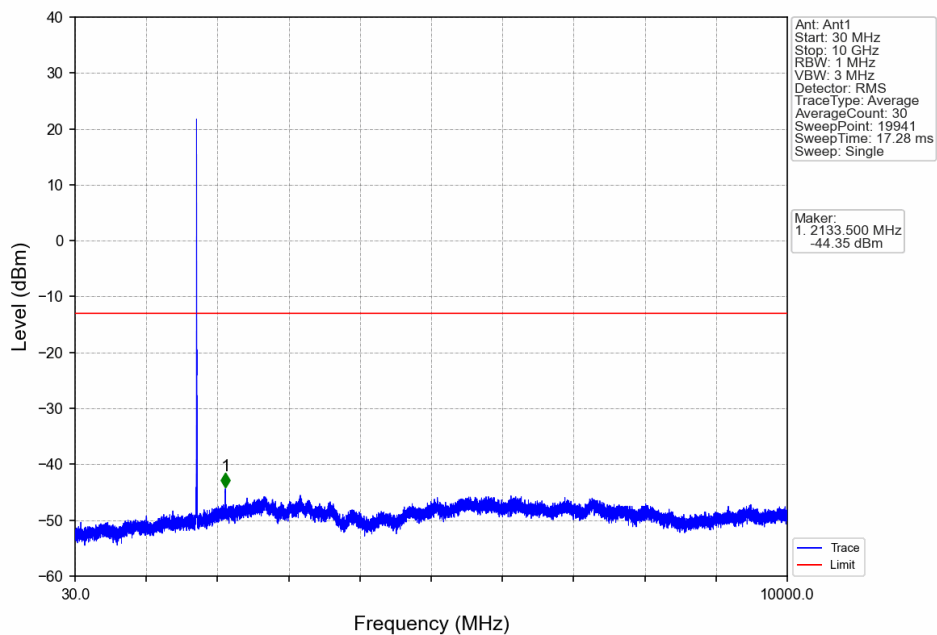


Band4 5MHz 16QAM LCH 1712.5MHz RB 25 0 NTNV

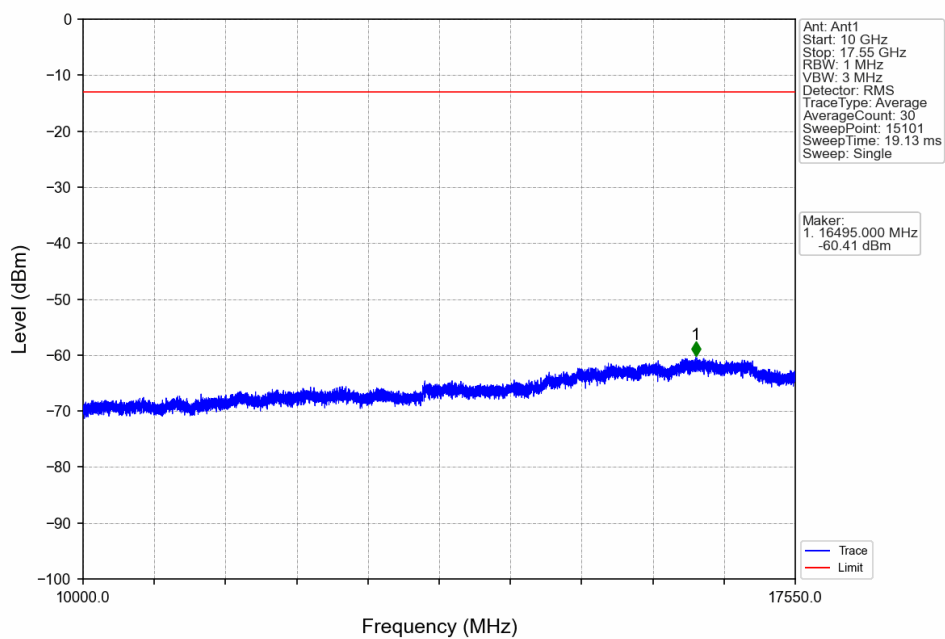


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1705	1709	1	CHP	1	1708.490	-34.82	-13	Pass
1709	1710	0.051	/	2	1710.000	-29.00	-13	Pass
1710	1715	0.051	/	/	/	/	/	/

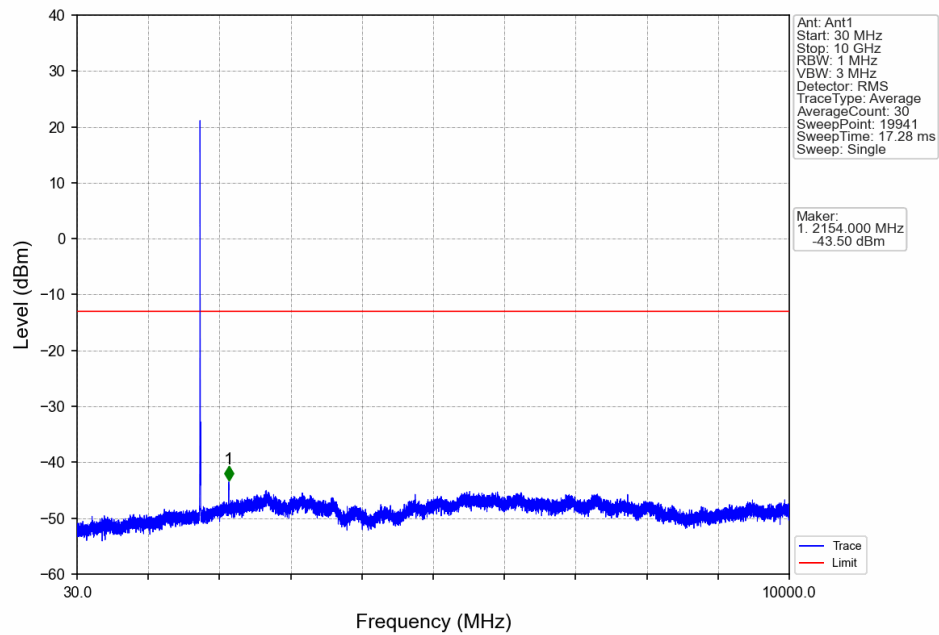
Band4 5MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



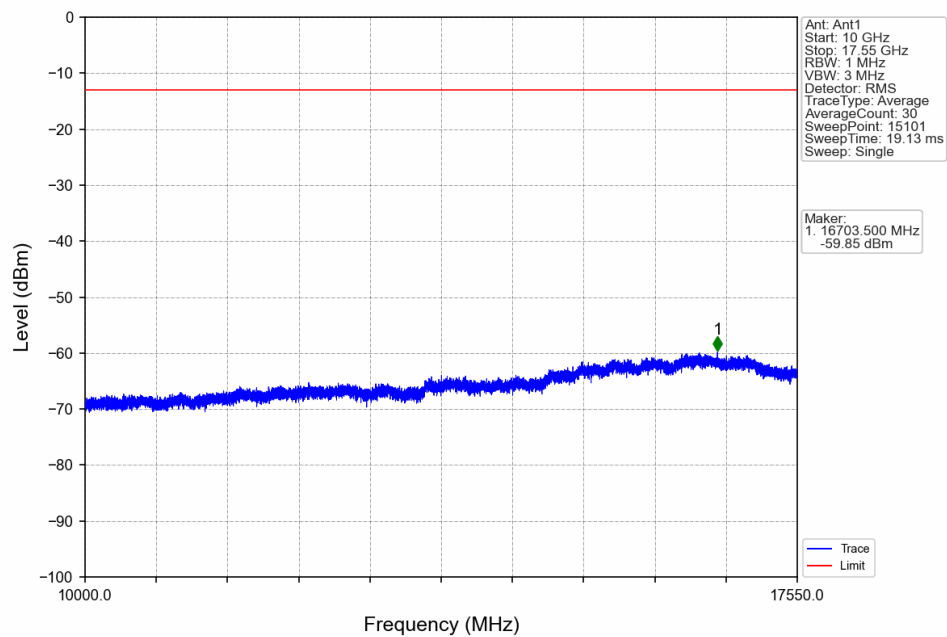
Band4 5MHz 16QAM MCH 1732.5MHz RB 1 0 NTNV



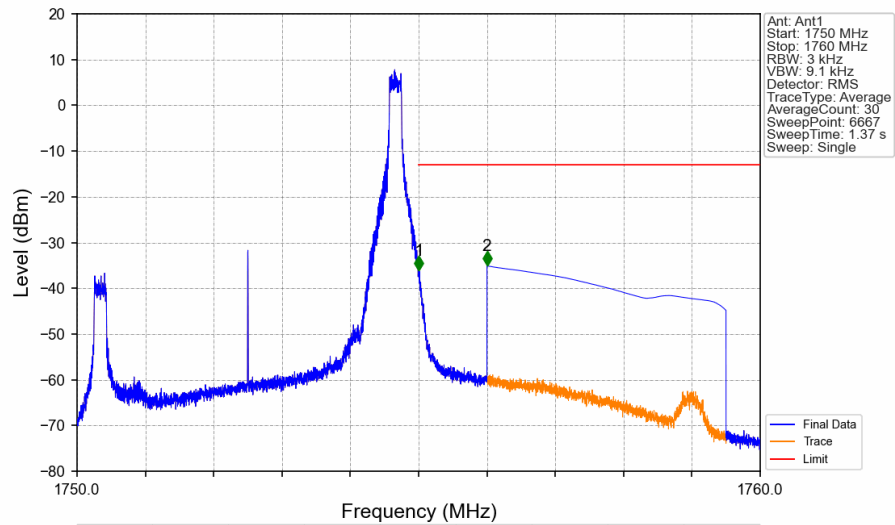
Band4 5MHz 16QAM HCH 1752.5MHz RB 1 0 NTNV



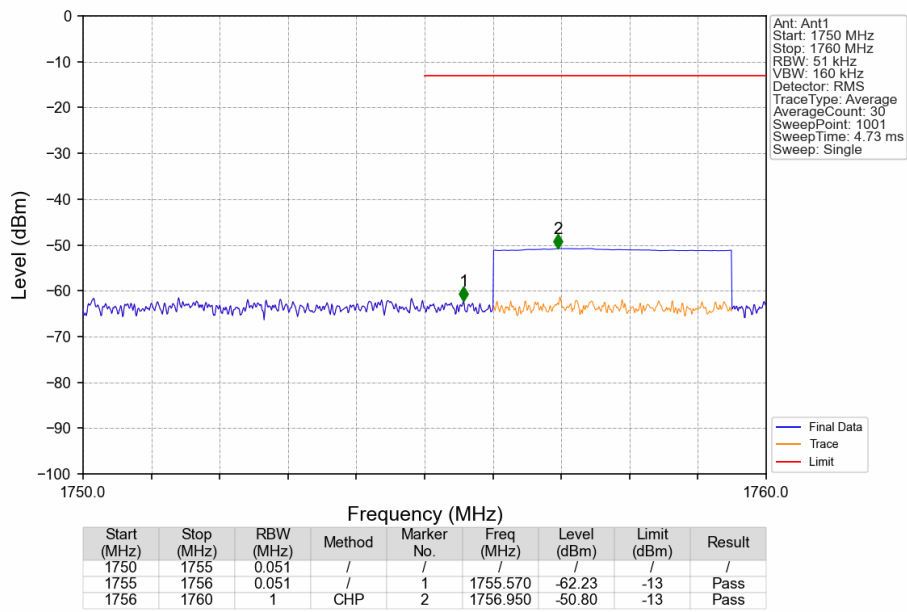
Band4 5MHz 16QAM HCH 1752.5MHz RB 1 0 NTNV



Band4 5MHz 16QAM HCH 1752.5MHz RB 1 24 NTNV

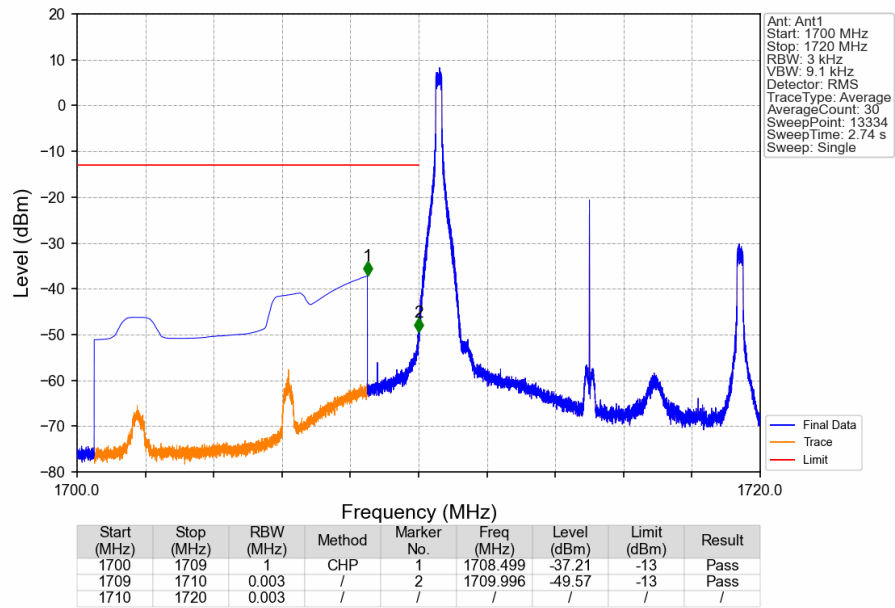


Band4 5MHz 16QAM HCH 1752.5MHz RB 25 0 NTNV

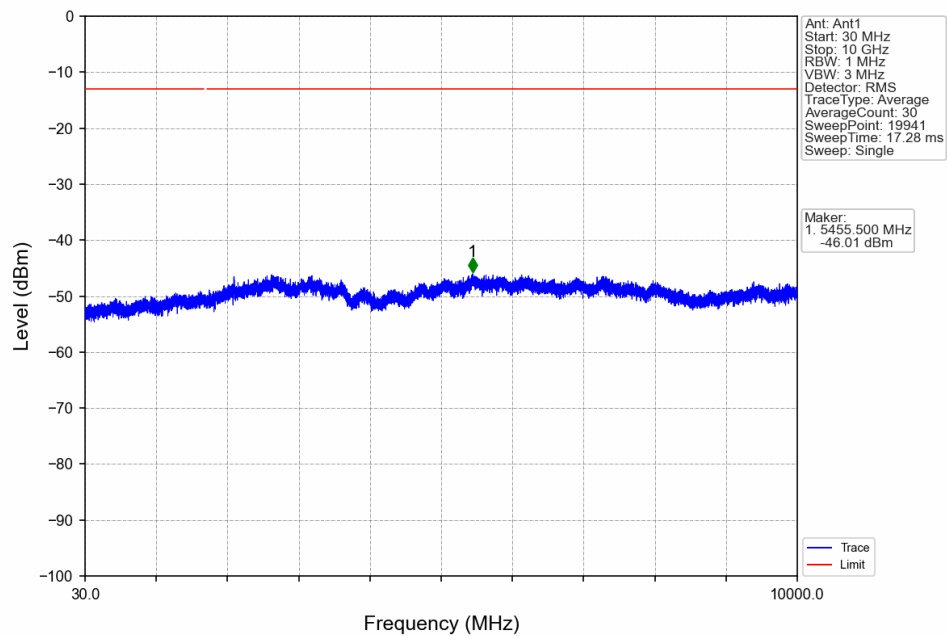


6.2.4 B4_10MHz

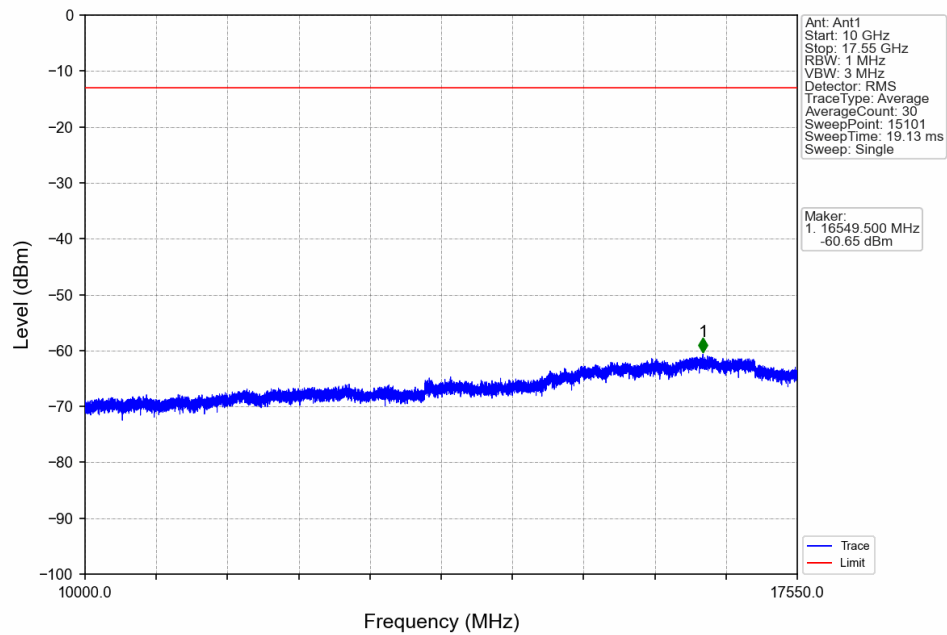
Band4_10MHz_QPSK_LCH_1715MHz_RB_1_0_NTNV



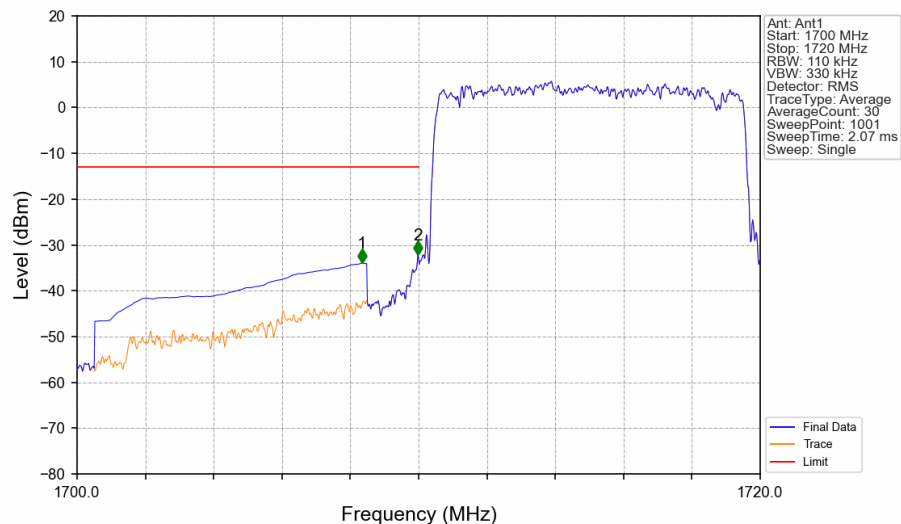
Band4_10MHz_QPSK_LCH_1715MHz_RB_1_0_NTNV



Band4_10MHz_QPSK_LCH_1715MHz_RB_1_0_NTNV

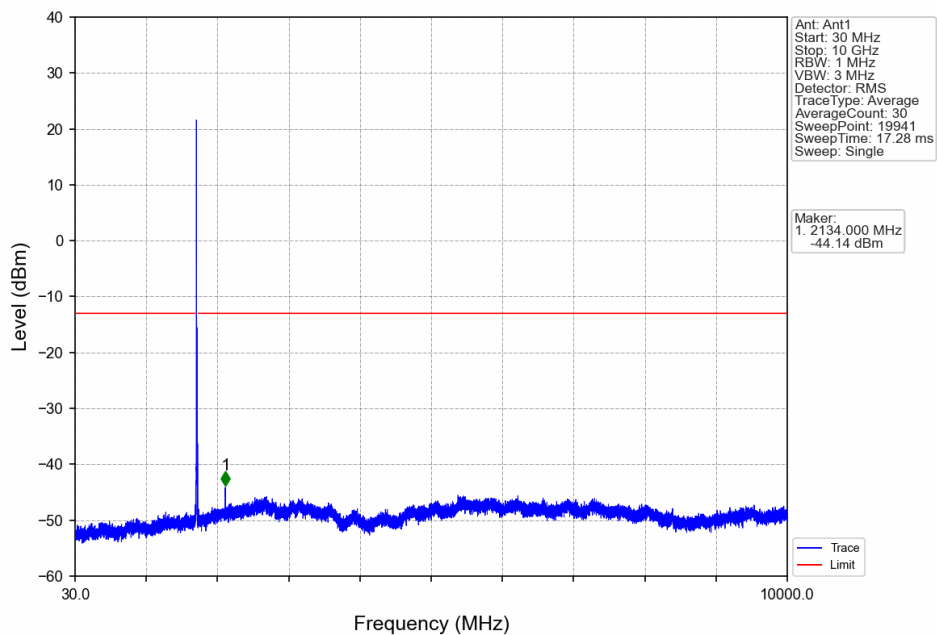


Band4_10MHz_QPSK_LCH_1715MHz_RB_50_0_NTNV

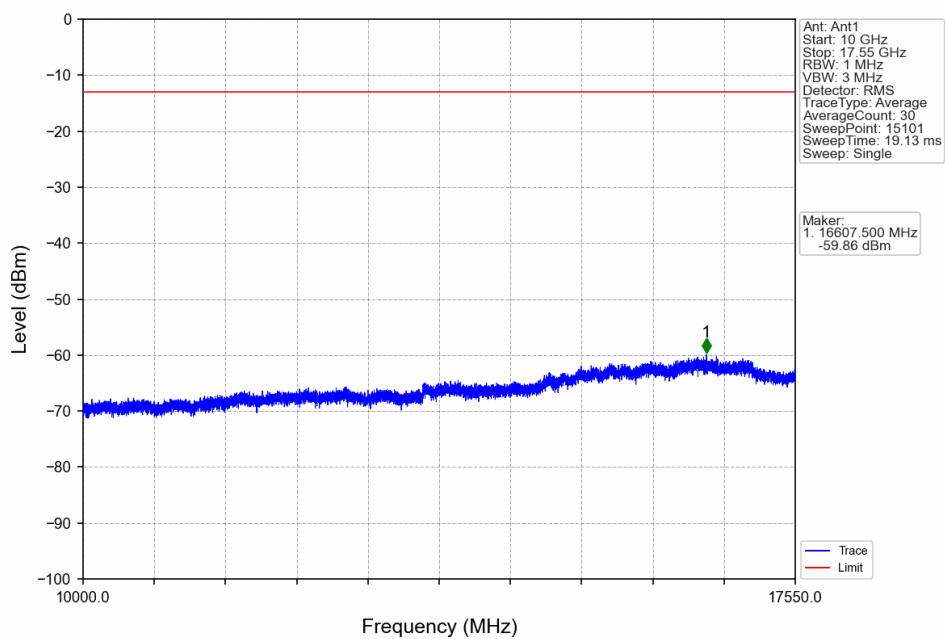


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1700	1709	1	CHP	1	1708.340	-33.97	-13	Pass
1709	1710	0.11	/	2	1709.980	-32.16	-13	Pass
1710	1720	0.11	/	/	/	/	/	/

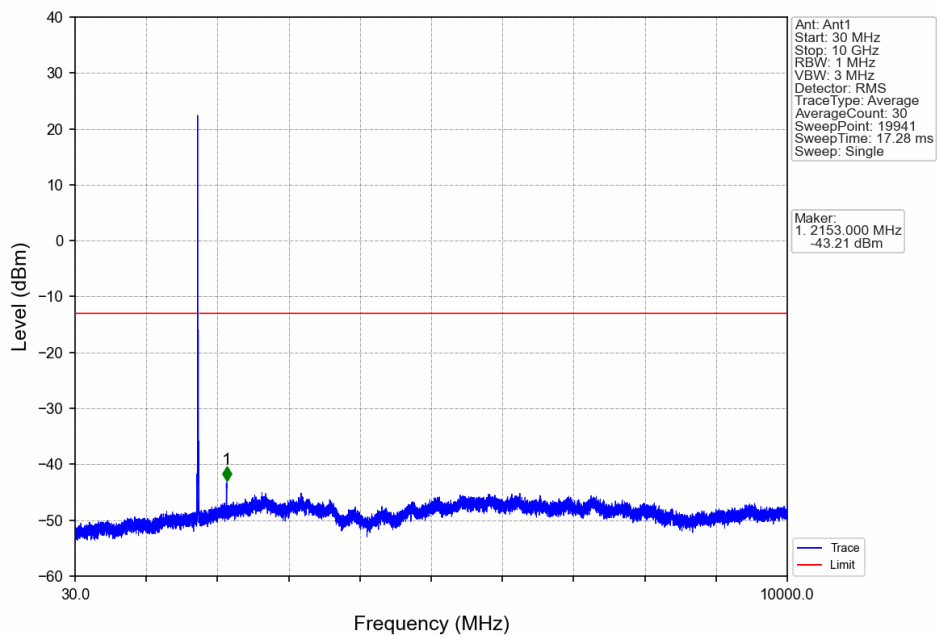
Band4_10MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



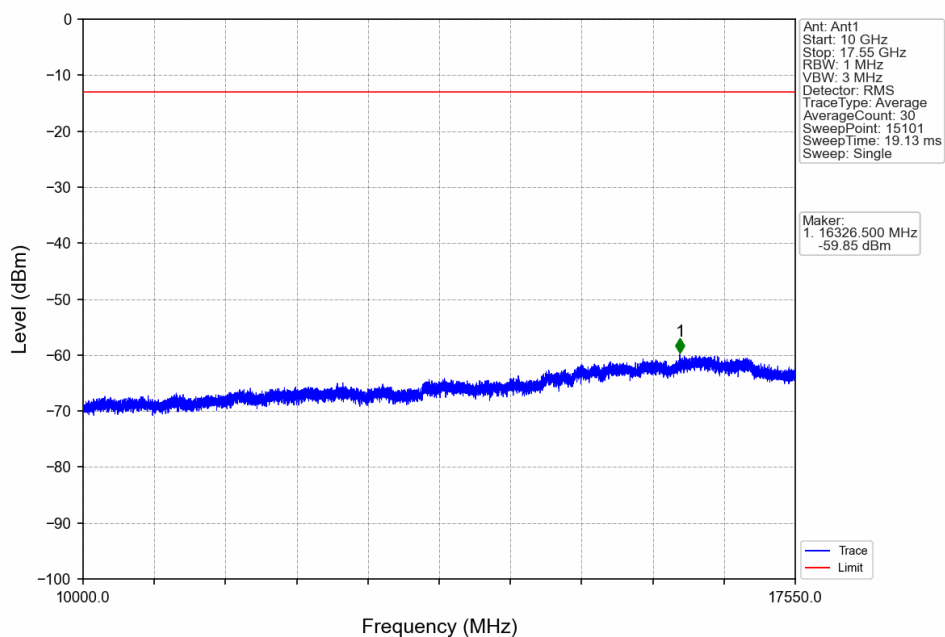
Band4_10MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



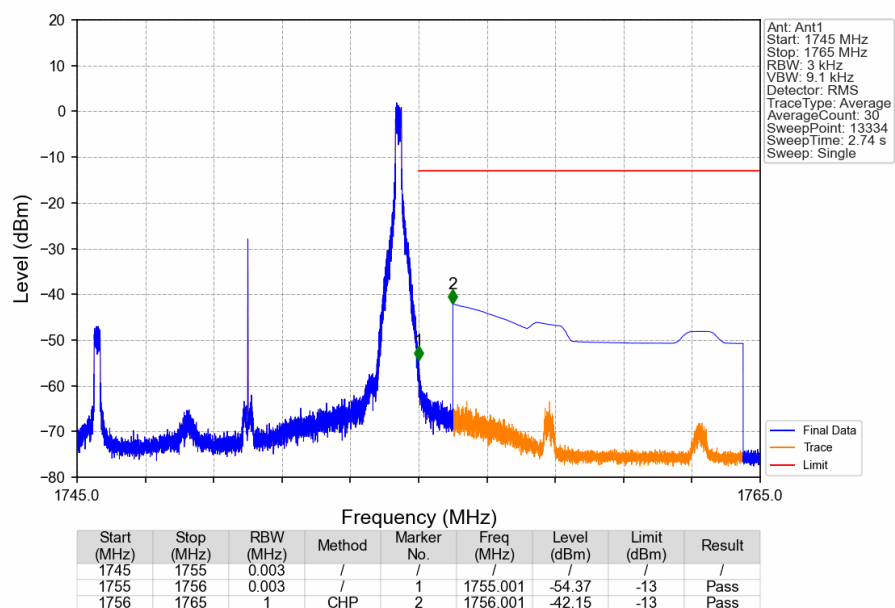
Band4_10MHz_QPSK_HCH_1750MHz_RB_1_0_NTNV



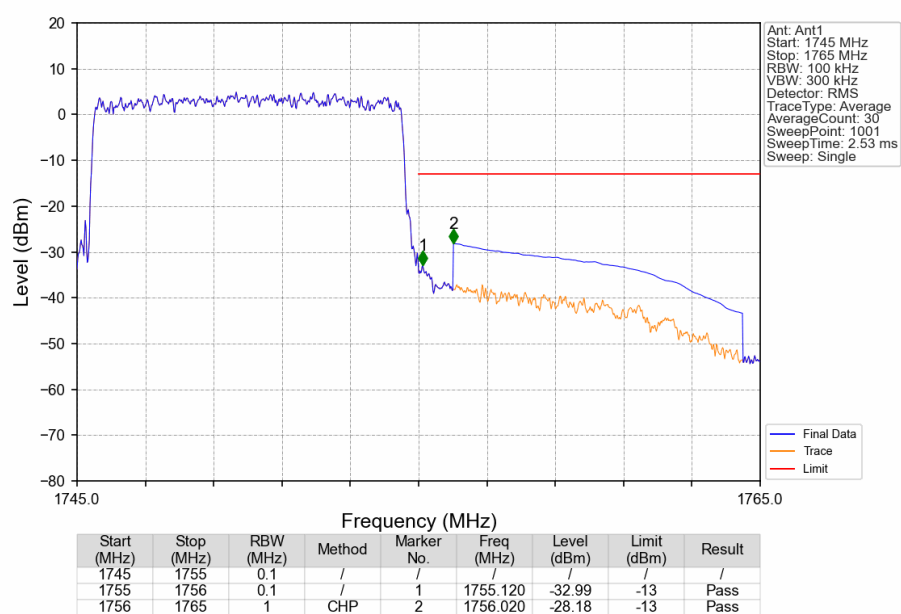
Band4_10MHz_QPSK_HCH_1750MHz_RB_1_0_NTNV



Band4 10MHz QPSK HCH 1750MHz RB 1 49 NTNV

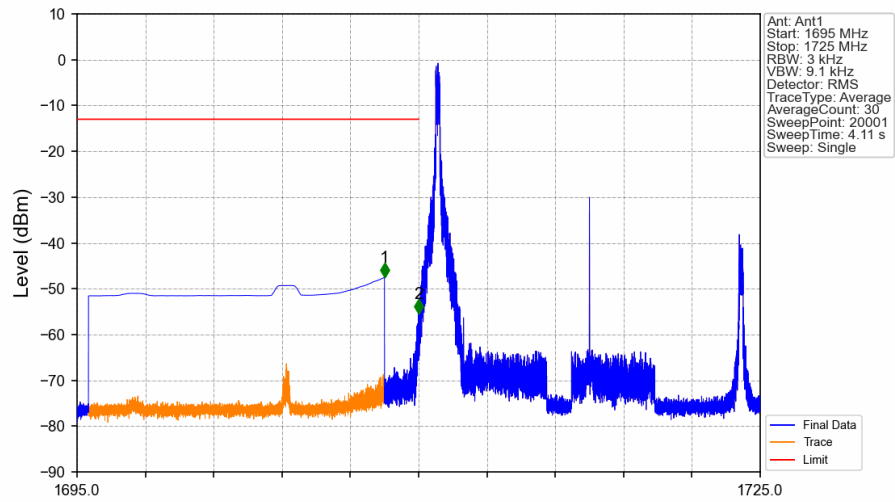


Band4 10MHz QPSK HCH 1750MHz RB 50 0 NTNV



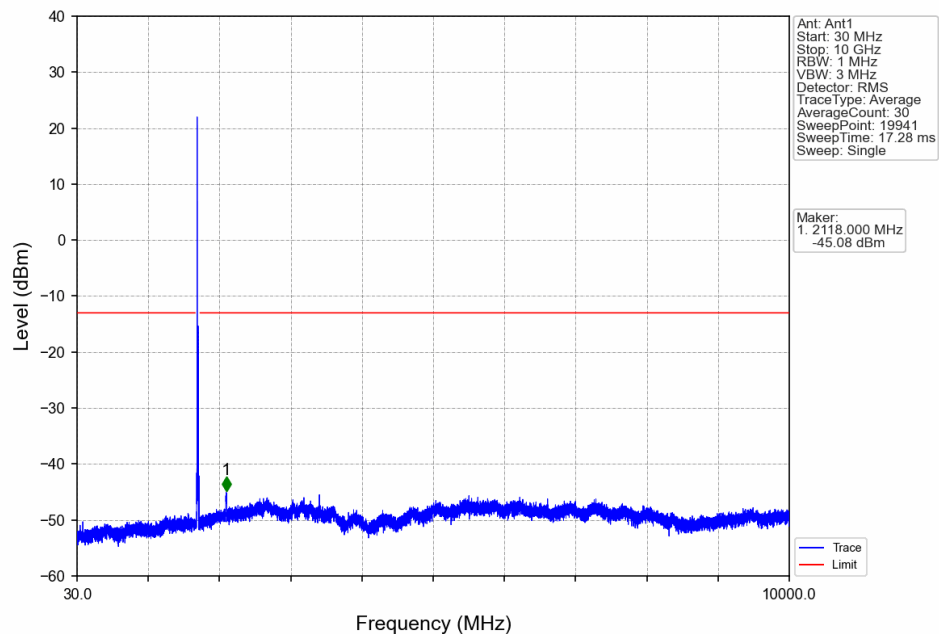
6.2.5 B4_15MHz

Band4_15MHz_QPSK_LCH_1717.5MHz_RB_1_0_NTNV

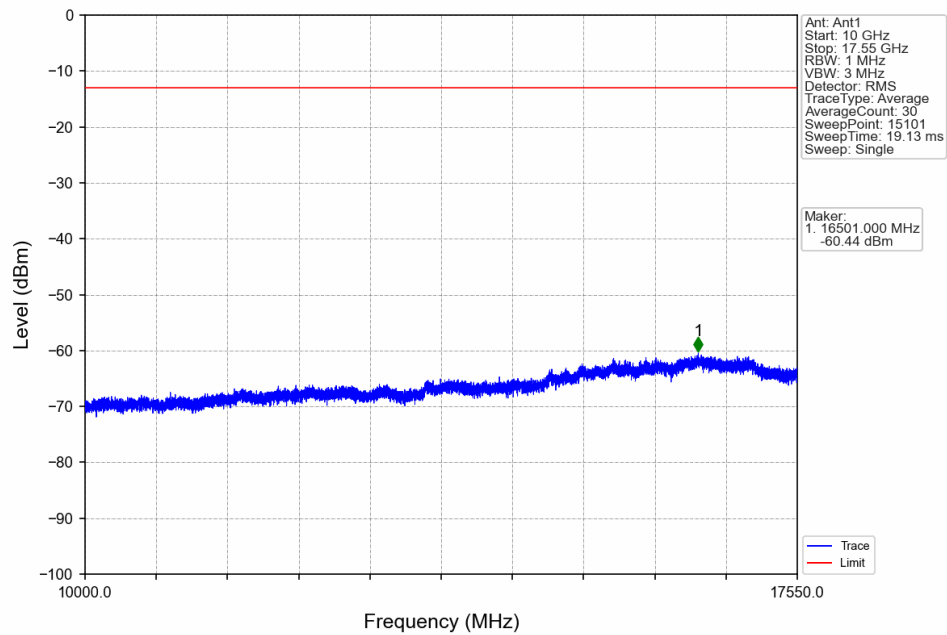


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1695	1709	1	CHP	1	1708.498	-47.52	-13	Pass
1709	1710	0.003	/	2	1709.995	-55.41	-13	Pass
1710	1725	0.003	/	/	/	/	/	/

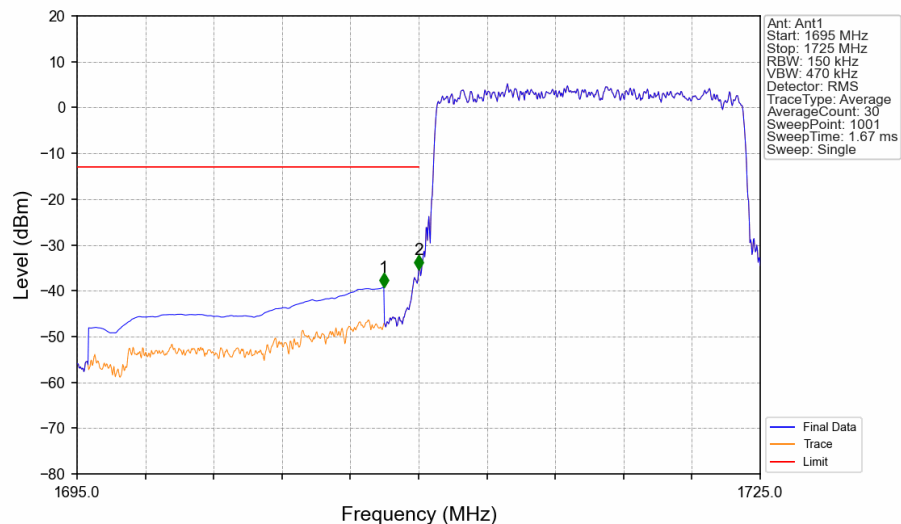
Band4_15MHz_QPSK_LCH_1717.5MHz_RB_1_0_NTNV



Band4 15MHz QPSK LCH 1717.5MHz RB 1 0 NTNV

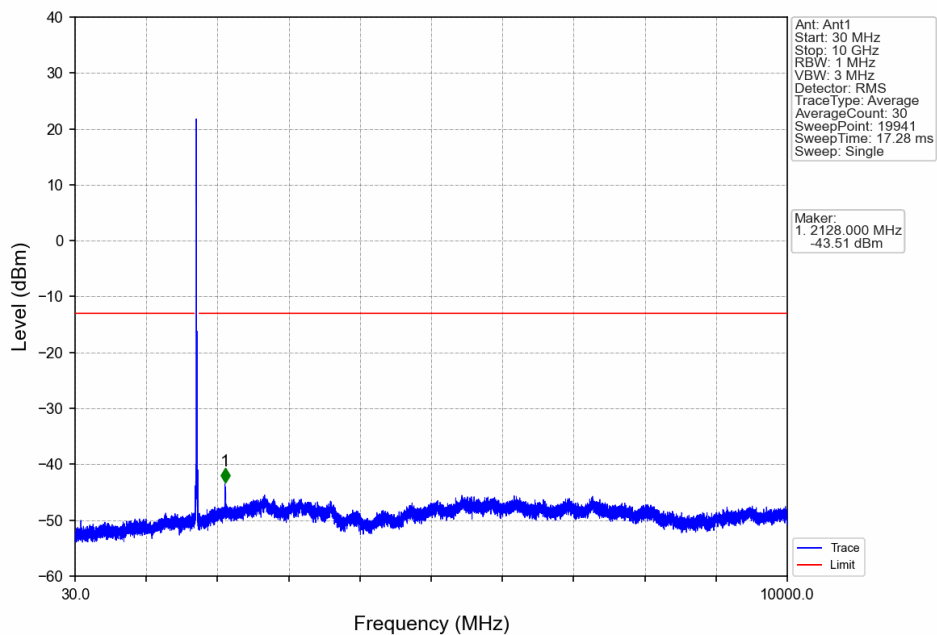


Band4 15MHz QPSK LCH 1717.5MHz RB 75 0 NTNV

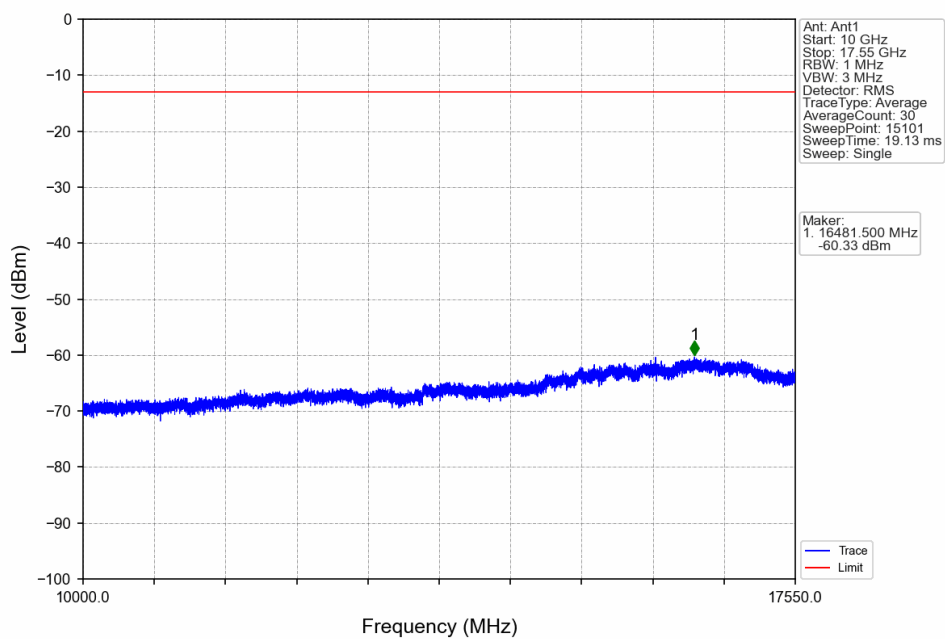


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1695	1709	1	CHP	1	1708.470	-39.23	-13	Pass
1709	1710	0.15	/	2	1710.000	-35.38	-13	Pass
1710	1725	0.15	/	/	/	/	/	/

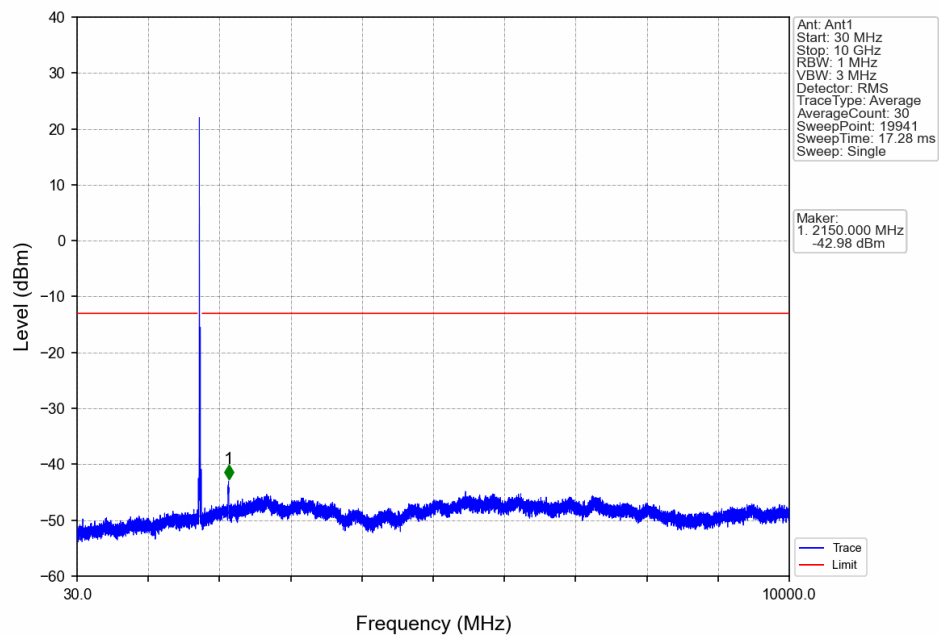
Band4_15MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



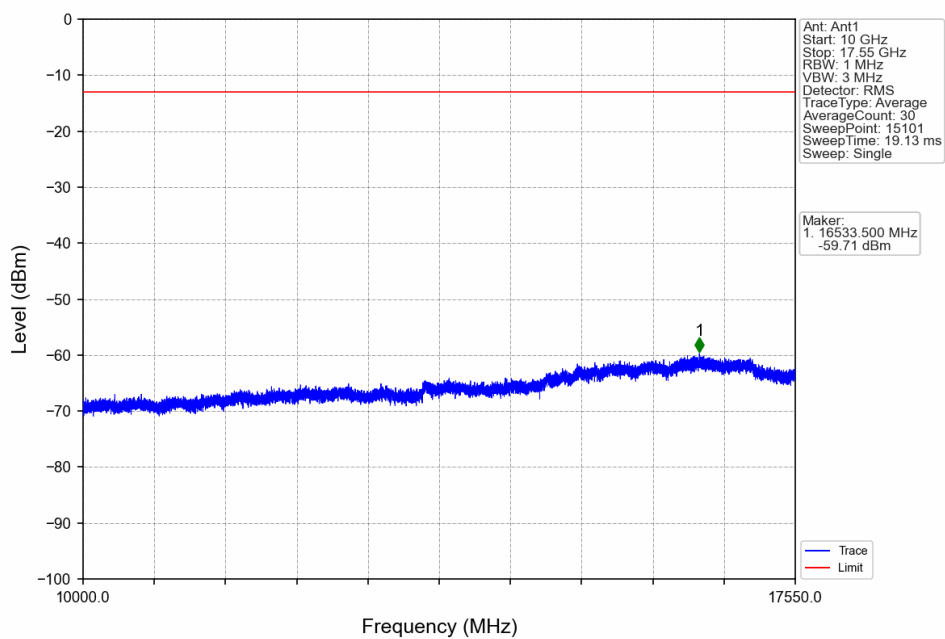
Band4_15MHz_QPSK_MCH_1732.5MHz_RB_1_0_NTNV



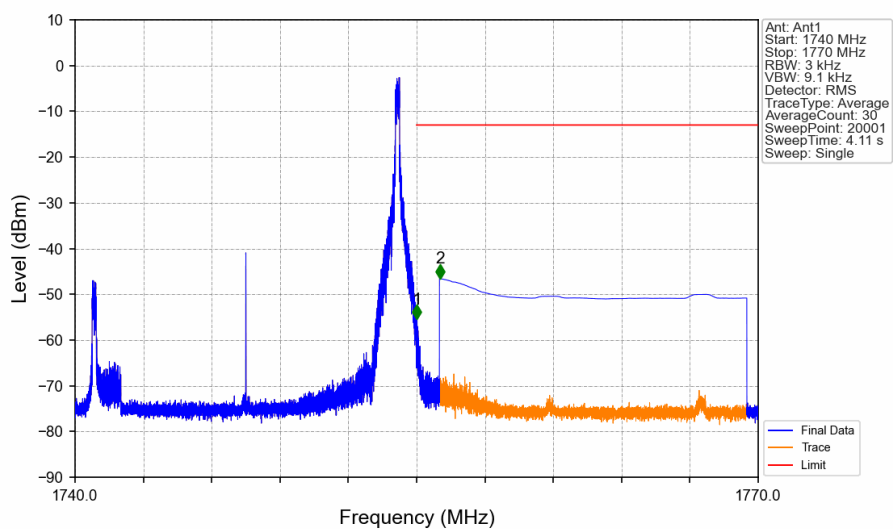
Band4 15MHz QPSK HCH 1747.5MHz RB 1 0 NTV



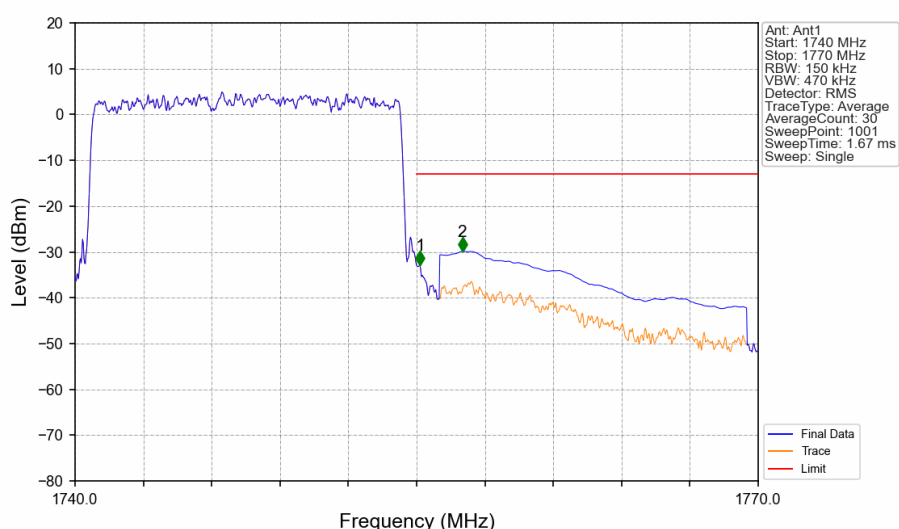
Band4 15MHz QPSK HCH 1747.5MHz RB 1 0 NTV



Band4 15MHz QPSK HCH 1747.5MHz RB 1 74 NTNV

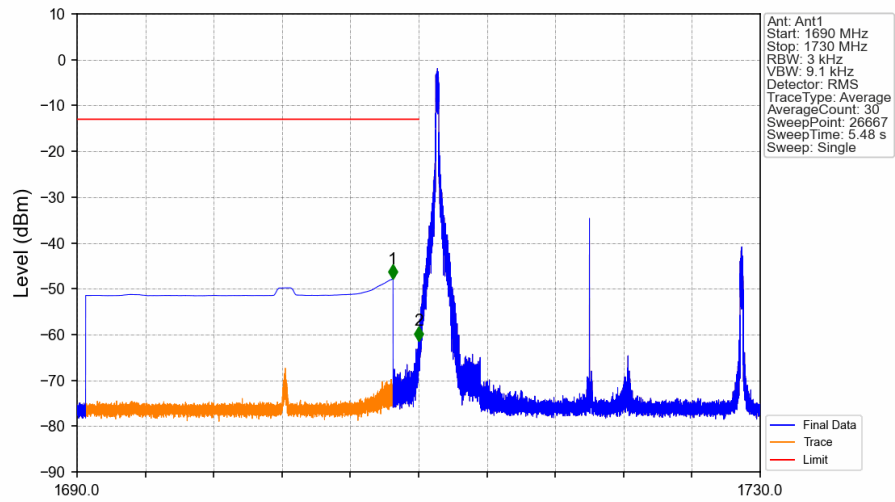


Band4 15MHz QPSK HCH 1747.5MHz RB 75 0 NTNV



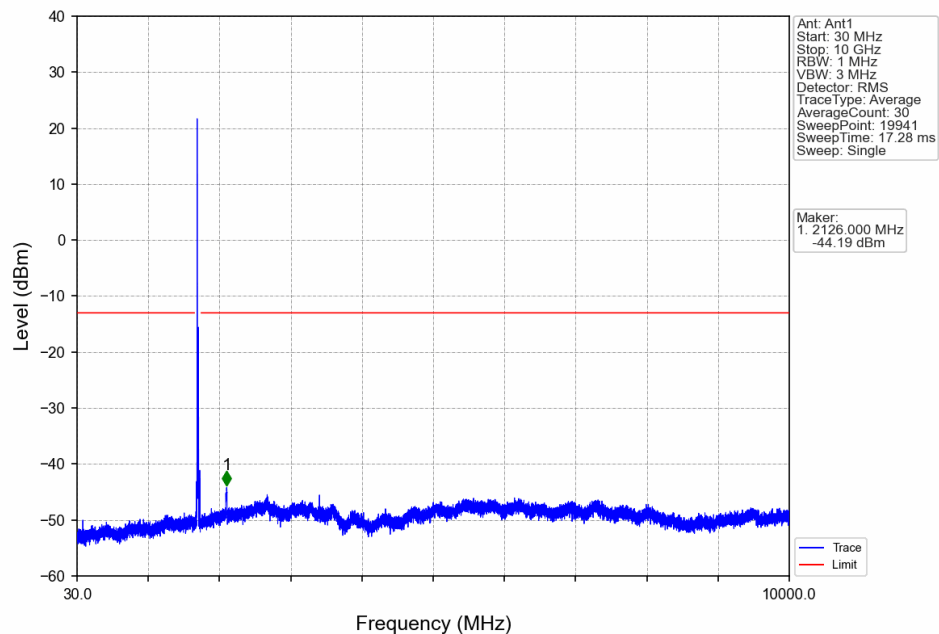
6.2.6 B4_20MHz

Band4_20MHz_QPSK_LCH_1720MHz_RB_1_0_NTNV

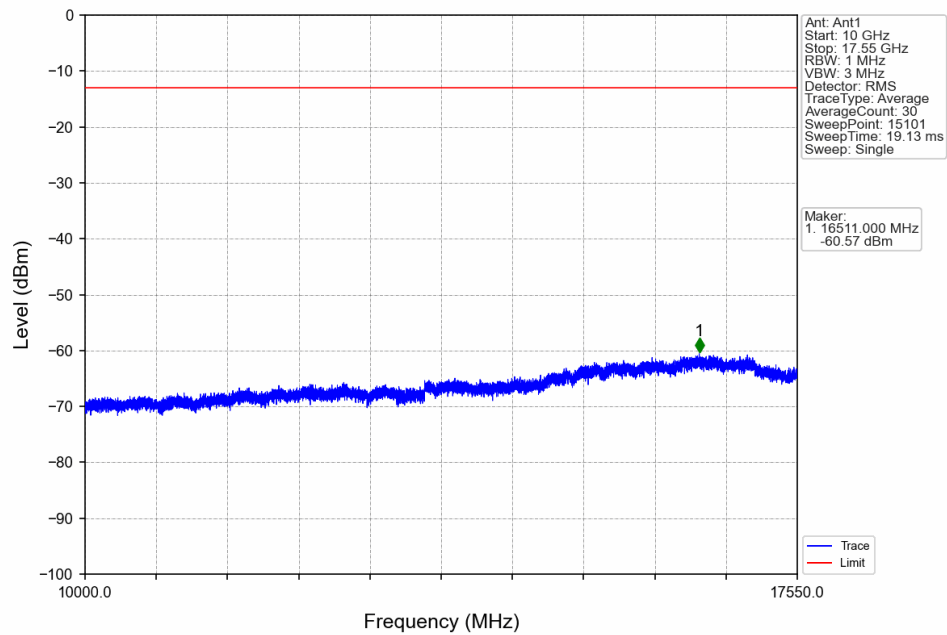


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1690	1709	1	CHP	1	1708.483	-47.86	-13	Pass
1709	1710	0.003	/	2	1709.991	-61.34	-13	Pass
1710	1730	0.003	/	/	/	/	/	/

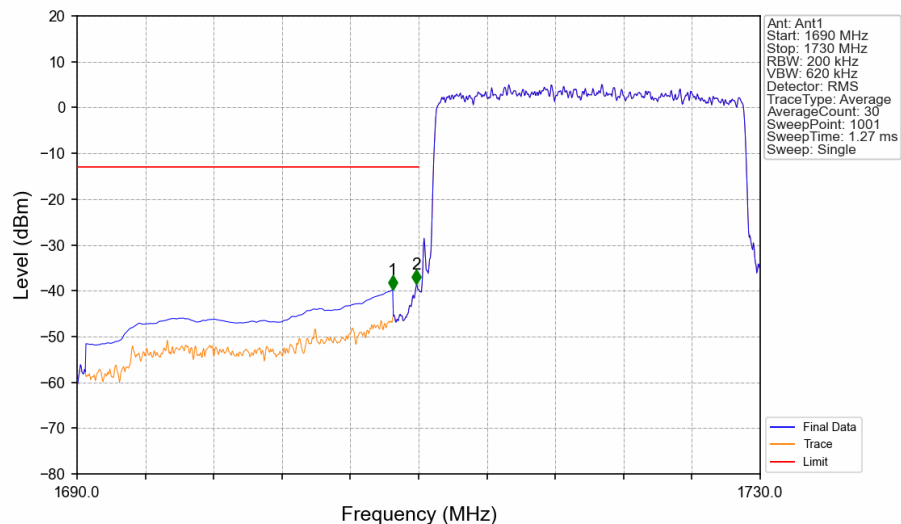
Band4_20MHz_QPSK_LCH_1720MHz_RB_1_0_NTNV



Band4 20MHz QPSK LCH 1720MHz RB 1 0 NTNV

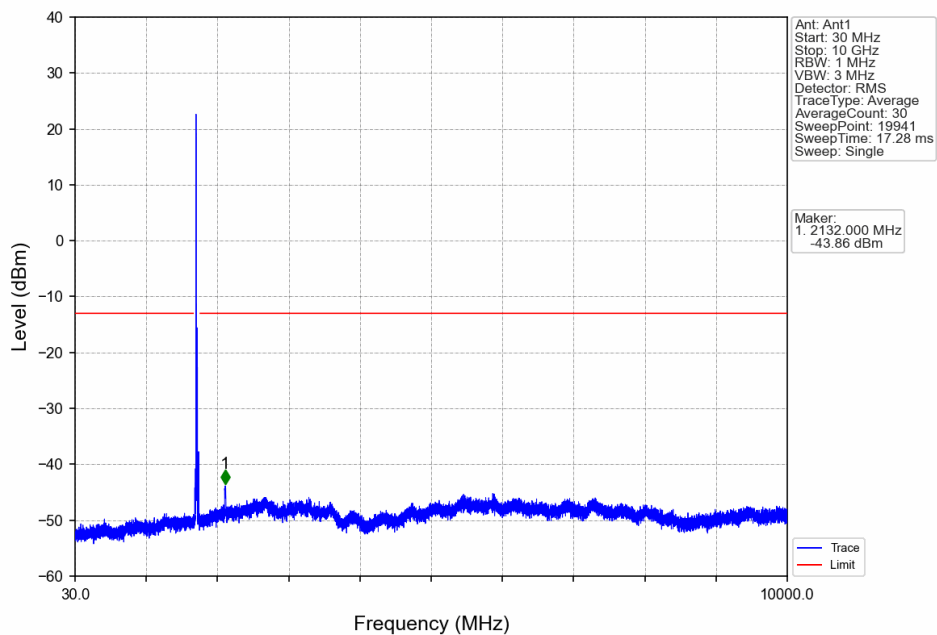


Band4 20MHz QPSK LCH 1720MHz RB 100 0 NTNV

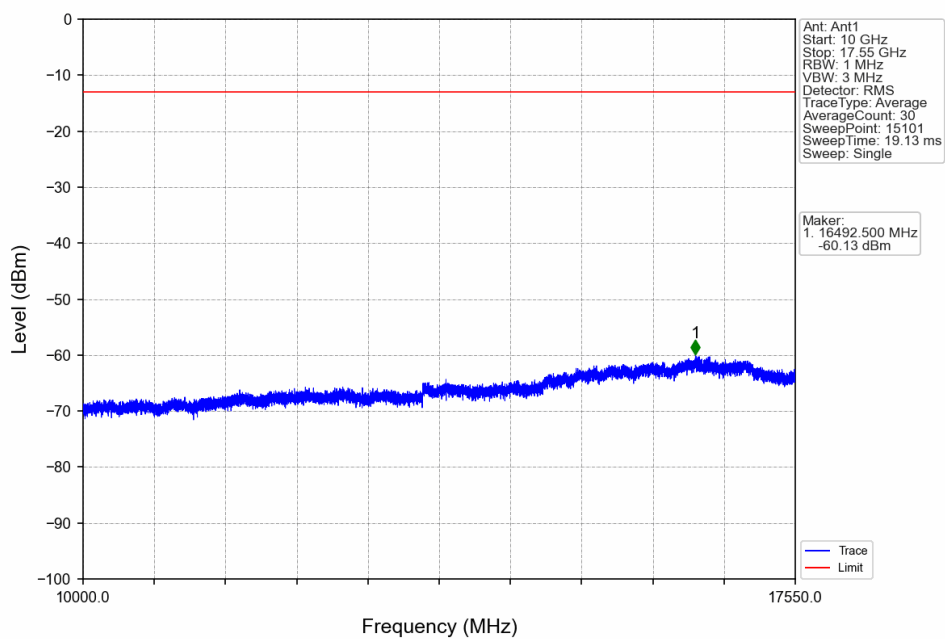


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
1690	1709	1	CHP	1	1708.480	-39.76	-13	Pass
1709	1710	0.2	/	2	1709.880	-38.58	-13	Pass
1710	1730	0.2	/	/	/	/	/	/

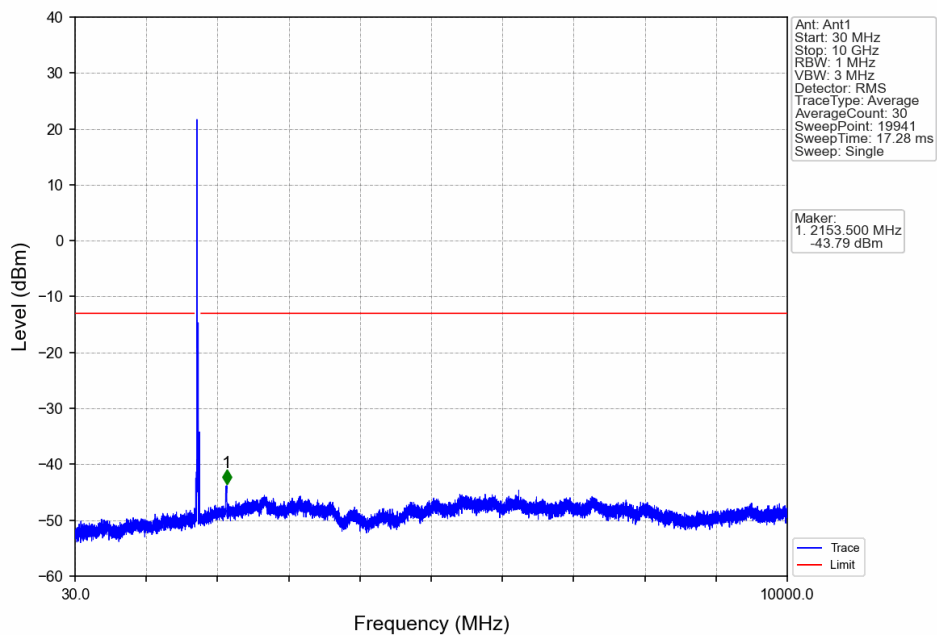
Band4 20MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



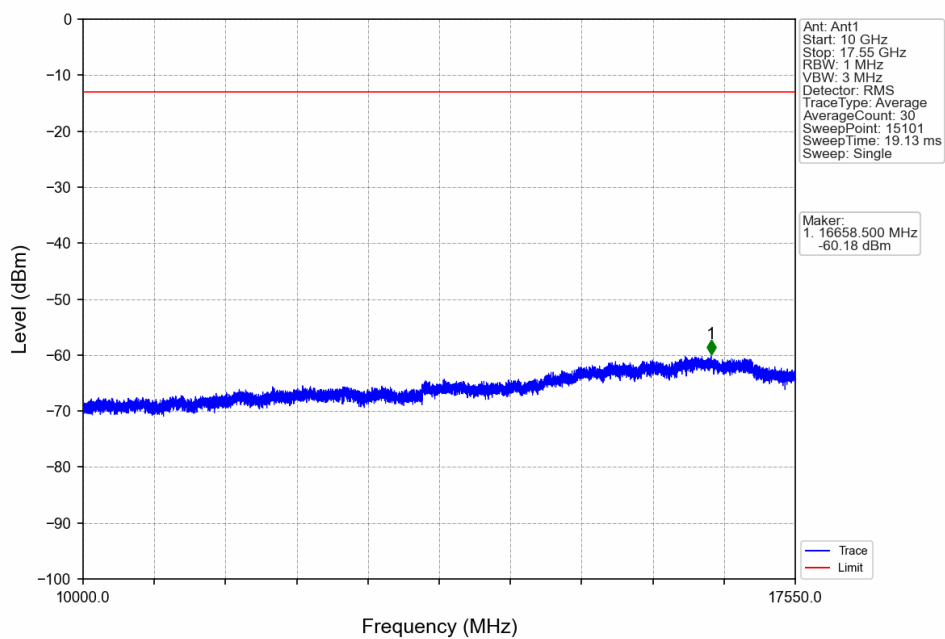
Band4 20MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



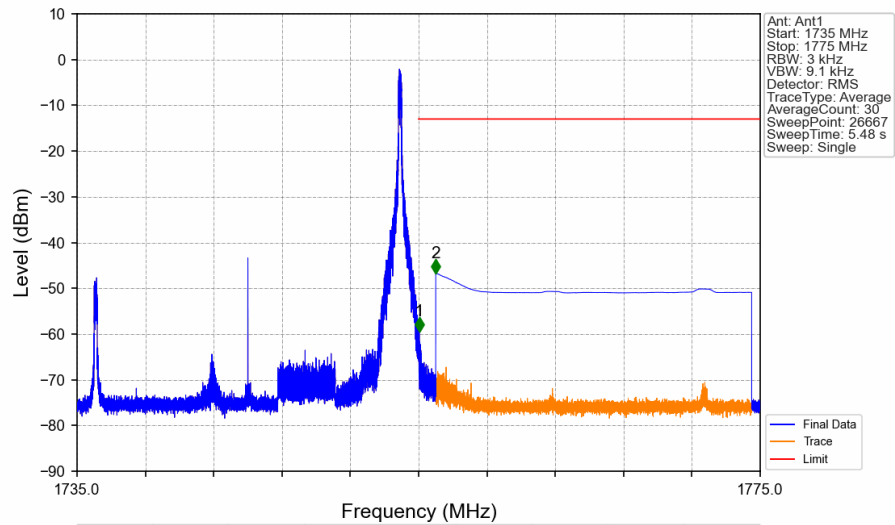
Band4 20MHz QPSK HCH 1745MHz RB 1 0 NTNV



Band4 20MHz QPSK HCH 1745MHz RB 1 0 NTNV



Band4 20MHz QPSK HCH 1745MHz RB 1 99 NTNV



Band4 20MHz QPSK HCH 1745MHz RB 100 0 NTNV

